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ESSAYS

ON

FEVERS,

AND

OTHER MEDICAL SUBJECTS.

BY
THOMAS MINER, M.D.
AND
WILLIAM TULLY, M.D.

MIDDLETOWN, (CONN.)

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PART I.

ESSAYS

ON

FEVERS,

AND

OTHER MEDICAL SUBJECTS.

BY THOMAS MINER, M.D.

He, who advances any thing new or uncommon, with respect to a subject that has an extensive influence upon the important interests of mankind, or who combats ancient prejudices and inveterate habits, will ever find one of his greatest difficulties to consist, in obtaining a fair, candid, and impartial hearing. The subject is perhaps treated so clearly, as to carry demonstration in every sentence; and yet, in an indolent and superficial age, few may be found, who will take the pains requisite to become masters of the facts, or of the chain of reasoning, which leads to the necessary deductions. Should he even obtain a hearing, he is still uncertain of success. It can scarcely be supposed, that they, who have adopted opinions which are contrary to reason and evidence, and have long made them principles of action, can be induced, by any process of reasoning, to renounce them, and to acknowledge their futility. Indolence and obstinacy are two prominent traits in the human character. They have ever been among the most powerful obstacles to the investigation and the promulgation of truth. When I was a young man, I thought it was only necessary to state facts, and the evidence upon which they are founded, with clearness and precision, to enable me immediately to obtain universal assent and approbation; but from a little experience, I soon had reason to fear, that THE LOVE OF TRUTH was far from being the ruling passion of a great majority of mankind.

PREFACE.

The author of the following Essays expects very little indulgence, except from his individual friends. They have had such extensive experience in the treatment of typhoid diseases, that they cannot fail to agree with his principles in general; though it is not expected, that even they, at first view, will be prepared to subscribe to all the details. For THE RESOLUTION OF FEVERS, the plan of subduing them in their *early* stage, by *slow and moderate purging with Calomel*, is entirely original. The principles for regulating the employment of antimonials, neutral salts, and vegetable acids, are to be found in many systematic writers; but there exists, notwithstanding, a great inconsistency in their adapting them to practice. Much care has been taken to point out and enforce a proper course, during the *preparatory* stage, and most of the usual errors, with their causes, have been noticed. These subjects, it is hoped, are placed in a more just and consistent point of light. There is little or nothing new, with respect to the *supporting* powers of Opium, except additional testimony in its favour. It is confidently expected, that something novel and interesting is to be found, in the Essays on Pulse, Stage, Type, and Diathesis; more especially, that the distinctions between the *nervous* and *putrid* types and their varieties, are expressed in a manner so lucid, as to be intelligible to every accurate observer. The important subjects of *coinciding* as well as *counteracting* agents, together with the absurdity of prescribing to the name of a disease, or even to the name of a symptom, without first investigating the diathesis, stage, type, or other circumstances of the complaint, have been largely discussed. Nearly all the rubbish, under which the subject of Crisis has been so long buried, it is hoped, has been removed.

Perhaps more of the following pages are occupied in exposing error, in combating inveterate prejudices, than in vin-

dicating truth. To a benevolent mind, this is always an unpleasant task. But in proper hands, the knife and cautery are no less consistent with genuine philanthropy, than the supporting bandage and the emollient cataplasm.

It is of immense importance, that the present confusion of the practice of physic, in the treatment of acute febrile diseases, should be known. The quantity of extraneous matter with which it has been encumbered, during the last fifteen years, is immense. Some author is needed of so much independence of mind, that he is not *afraid* to hazard his popularity, by publishing a true statement of the most important facts.

Should it be thought, that he has vindicated the cause of TRUTH and HUMANITY, with a degree of zeal and ardour, bordering on asperity, he has only to observe, that he can make no apology. When he finds it asserted, under the authority of the highest names, that the Bark is rarely serviceable in our Fevers—that blisters to the head are of no use in typhoid affections of the brain—that Opium, in regular and repeated doses, during the stage of febrile exhaustion, is inadmissible—that the mercurial action, when moderately excited during the *preparatory* stage, is of no other service, than as a test of the natural mildness of the disease—or that continued Fevers are never cured by resolution—his charity is exhausted. He can attribute these assertions to no other sources, than ignorance, obstinacy, and what is still worse, wilful misrepresentation.

Neither the timid, nor the rash—the indolent, nor the bustling—the credulous, nor the skeptical—the empirical, nor the dogmatic—will here find any thing to flatter their prejudices. No success is promised to any, who are deficient in accuracy, skill, and patient investigation.

An able physician does not content himself with merely supporting his patient, and carrying him safe through the danger of the malady under which he labours; but if called sufficiently early, he strives to subdue the disease instantly, by producing an immediate *resolution*. This, when accomplished, is the perfection of our art. It is the goal, which we all ought to aim at, and when kept constantly in view, is attainable in many more instances, than could have been previously imagined.

They, who are unacquainted with the method of slow and moderate purging with Calomel, cannot conceive the vast number of diseases, that may be nipped in the bud, by this single process. A suitable dose of Opium alone, arrests

many others, at the access. Colchicum, Veratrum, and similar articles, promise perhaps as much as Opium. Arsenic, or Corrosive-sublimate, often cures incipient Cancers. Some diseases yield, almost instantly, to emetics; others, to cathartics. Warm bathing, and cold affusion, have also states, to which they are peculiarly adapted. The same may be said of sweating, from external heat, warm vapour, and diaphoretic drinks. The instances of speedy cures, by some of these means, of such cases as are naturally protracted and unmanageable, are so numerous, and afford so much encouragement, that the subject of the EARLY RESOLUTION OF DISEASES, which has hitherto been so unaccountably neglected, has now become a matter, worthy of studious investigation. There is no conceivable reason, why remedies may not yet be discovered, which, if *seasonably* applied, can make an impression, a strong counteraction, which, while it is perfectly safe, is sufficient to produce a speedy resolution of every disease, that does not depend, either on a chemical or mechanical lesion, or extreme exhaustion of the vital power, of an essential organ.

So little attention is usually paid to this important subject, that it is entirely overlooked, in estimating the *comparative* skill of physicians. The resolution, or prevention of disease, is not taken into the account, at all.

It may be thought, that unnecessary pains are taken, to vindicate the *mercurial* practice—that the prejudices against its use, and supposed ill consequences, like those which formerly existed against the Bark, have long since passed by, and that the writer has only been beating the air, or erecting a castle of straw, for the satisfaction of battering it down. This is far from being the case, in the town where he resides. In his vicinity, the prejudices and opinions of a considerable part of the community, arising from their submitting for more than half a century, to the most inert practice that medical skepticism could invent, are so strong, that one ptyalism will produce a greater excitement in the public mind, than the loss of half a dozen valuable citizens, arising from the most palpably inert and feeble practice. Under such circumstances, nothing short of a full confidence in the correctness of his general plan of treatment, and a conscientious regard to his moral responsibility, can prevent any practitioner from being overruled.

It is to be hoped, indeed it is known, that at the present

day, many physicians have few or none, of these difficulties and prejudices to encounter.

A primary object of this publication, is to give *precise* rules for the *administration*, the *abstraction*, and the *non-employment* of CALOMEL. In acute diseases, every physician has seen it sometimes act like a charm; at other times, it is ineffectual; and under certain circumstances, it is positively injurious. Hitherto, a good treatise upon this important article has been a desideratum in medical literature. The same remark, with some limitations, applies to Opium.

In the following method of treatment, the unpromising cases of those patients, whose constitutions, have been undermined, or much impaired, by previous sickness, age, or intemperance, are scarcely taken into the account. They are often so low, obstinate, and anomalous, from the beginning, as to baffle any rational plan of treatment. Besides, in severe epidemics, a few malignant cases, from their very access, are attended with such extreme exhaustion of the powers of life, combined with such excessive irritability on the one hand, or such excessive torpor on the other, that the patients may be fairly considered, as struggling under the agonies of death, before there is alarm sufficient to call a physician.

With these exceptions always in view, the writer is free to acknowledge, that he never saw a *regular* case of Fever, either run its course, or prove fatal, that might not fairly be attributed to some *obvious* neglect or mismanagement, on the part of the patient, or nurses, or physicians. In his opinion, the mortality by no means necessarily arises, from the original and unconquerable obstinacy and severity of the disease. This view of the subject gains additional strength in his mind, from the renewed observation and experience of every succeeding day of his life, and has produced a degree of confidence, nearly equal to that, which is derived from mathematical demonstration.

In so many Essays, written at various times, for the purpose of illustrating the same general principles (without however expecting, when they were composed, ever to embody them in one volume) there must necessarily be a recurrence of the same thoughts, and often a repetition of the same words. In some instances, there is an expansion of a particular thought, in others, an abridgment, which at first view might be supposed, not exactly to square with the sentiments previously expressed. But, it is presumed, that on

close examination, it will be uniformly perceived, that the subject is only placed in a different point of light. In general, the *many*, perhaps tiresome, repetitions, are not to be ascribed to oversight, but are retained for the express purpose, of *enforcing* an important subject.

The author readily grants, that there are various plans of medication, which are usually attended with considerable success; and he entertains the highest opinion of the talents, skill, and integrity, of many gentlemen, whose views differ materially from his own. He is also sensible, that there are numbers, even of this description, who from the common infirmities of human nature, and more especially from the pride of science, can never be influenced to make a fair trial, in any instance, of his process for *the resolution of Fevers*. If they should condescend to make the attempt, they will not be likely to consider it, as *a whole system of itself;* but by overdoing some parts, and omitting others, their imperfect trials will, for a time, have a strong tendency to bring it into disrepute. Notwithstanding the inveterate prejudices and obstacles, which he will have to encounter, he does contend, that in the following pages, there is detailed a more certain and definite method of treating the typhoid diseases of our country, and a course of practice which promises more success, than any, which has been hitherto published.

To theorists and cavillers, who are disposed to question the accuracy of any of the important facts, which are asserted in these pages, before they have acquired the patience and skill of testing them, by such fair and repeated trials, as have been made by the author, he can only say, that he entreats them instantly to lay the book aside—to stop at the threshold—and not to give themselves the trouble of perusing a work, which they are thus predetermined to treat uncandidly.

Most writers on professional subjects, under an assumed modesty, offer their productions for the perusal of students only. The author has no affectation of this kind. As this is neither an elementary nor a systematic work, it is not, of itself, calculated to teach a student, how to administer a *single* dose of medicine, in *any* disease. He can scarcely expect his Essays to be read, much less to be understood, by any, who are not previously well acquainted with the principles of the healing art, and who have not already become skilled in their profession, by a large share of personal practice, obser-

vation, and experience. *Nemo recte, de artificio judicare potest, nisi artifex.* He has long since despaired of attempting to make any serious or permanent impression, on the timid or the rash, the skeptical or the credulous, the wavering or the obstinate; on them, who are *semper discentes et nusquam ad scientiam veritatis pervenientes.*

The practice of Physic, is one of the most interesting, honourable, and glorious employments, in which a real Christian, and true Philanthropist, can ever be engaged. The example of the Saviour of the world, who went about doing good, and spent a great proportion of his time, in healing the sick, in curing all manner of diseases, both of body and mind, is decisive upon this subject. To carry the healing art to the highest perfection, of which it is susceptible, more skill, more learning, more industry, and indeed, more integrity, are requisite in the members of the medical faculty, than in those of any other profession.

A physician, who is in full practice, is therefore necessarily subject, to the most laborious exertions, both of body and mind. In addition to these, he has attached to him, an immense weight of moral responsibility. If he suffer a single patient to die, from any carelessness, or neglect, or ignorance, which it was in his power to avoid, or from *allowing his better judgment to be overruled by popular prejudice or clamour*, however secure he may be from the reach of any human tribunal, he must prove guilty of homicide, when arraigned at a higher bar.

The mercenary practitioner, who is destitute of zeal in the cause of humanity, who has no love for his profession, who feels no ardour in the pursuit of studies and observations, which lead to its improvement, but pursues an indolent routine, and for the emolument only, makes a *trade* of his practice, must have first extinguished every principle of humanity, of honour, and of moral responsibility.

THOMAS MINER.

Middletown, Connecticut, July 1, 1823.

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While the work was in the press, it was found expedient to omit several of the Essays which were intended to be inserted, or to increase the size and price of the Volume, far beyond the original design of the publication. This omission was occasioned by the difference in the page and character of the various manuscripts, which rendered it impossible to make an accurate calculation. The work, however, is complete in its present form; and the publishers flatter themselves, that they shall receive such patronage from the public, as will enable them soon to publish the remaining Essays, with additional matter, in a separate Volume.

ESSAY I.

THE RESOLUTION AND TREATMENT OF FEVERS.

Ante omnes quæritur, primis diebus, Æger qua ratione continendus sit.

La Résolution appartient à toutes les Maladies.

FEVERS are the most numerous, the most complicated, and the most mortal diseases, that afflict mankind. In one form or other, they destroy much the greater portion of the human race. Yet, it is believed, they are not necessarily so fatal, but that their great mortality does, in fact, depend upon several contingent circumstances. It has been calculated, that within a hundred years from Sydenham, the *indiscriminate* use of the lancet, and the antiphlogistic regimen, so highly recommended by him, was the cause of more premature deaths, than all the wars that ravaged Europe, during that period. Nor is the common doctrine which is so generally taught in the schools, and followed by a great proportion of practitioners, that in order to obviate the violence of febrile re-action, it is necessary, after free venesection, and brisk vomiting and purging, to subject the patient, for a fortnight at least, to the discipline of

antimonials, nitre, effervescing mixtures, vegetable acids, and the whole round of the antiphlogistic regimen, less liable to exception. But by far the most *prominent obstacle* to improvement in practice, is the opinion which has had too much influence, ever since the days of Hippocrates, that *every Fever must run its course;* that it can neither be broken up at its access, shortened in its duration, nor have its symptoms materially mitigated, by the interference of art. This has led its numerous advocates to a mere palliative and *placebo* plan, which, as may be supposed, has served to confirm the very prejudice itself. Even when a more decided course has been adopted, under different views, it has often been so *injudiciously* applied, or so *ineligible* in itself, as to result in skepticism and uncertainty. In Fevers, the physician who only employs a palliative treatment, resembles the temporizing, nerveless politician, who endeavours to repel foreign aggression, by bribing the enemy, or paying tribute; but he that combats disease, by making an *early* and *powerful impression*, is the efficient general, who transfers the seat of war into the enemy's country. This plan, when properly executed, in the medical, as well as in the belligerent world, is the only one, which, with any degree of certainty, can ensure success.

Sufficient importance has not been attached to the *early treatment* of Fevers. By a *proper beginning*, a

complete resolution of the disease may often be produced, and the patient escape, with a mere ephemeral illness; or if not, whether he shall sink down suddenly at a *critical period*, or have a moderate complaint only, depends almost exclusively on the management of the *first week;* and indeed more frequently, upon the choice and administration of the *first dose* of medicine. This appears not to be sufficiently attended to by many, even of the best practitioners. Whether the patient go through a regular course of Fever or not, I repeat the assertion, is almost entirely owing to the *early practice.* The effects of the medicines, which are indicated in the *subsequent treatment*, are much influenced by the same cause.

When we fail of subduing Fever at its access, in the *regular* form of the disease, the remainder of the first week is, with propriety, termed its *preparatory stage.* Hence, the *future* and *remote* consequences of the treatment must be anticipated, and in general, are of much greater importance, than the *immediate* and more obvious effects of the present practice. It often happens, that an error in this stage is not *apparent*, till near *the crisis;* and consequently, is entirely overlooked by superficial observers.

All the great disputes with regard to practice, as questions respecting bleeding, emetics, cathartics, diaphoretics, cold affusion, diathesis, type, etc. are confined almost exclusively, to the *preparatory course* which

is proper to be pursued, during the first week. For, when Fevers have been judiciously managed during that period, what is often, but in general, very inaccurately called the inflammatory stage, or in other and more correct language, the period of excitement or reaction, if it existed at all, will have passed by, there will be a prominent critical or sub-critical change in the symptoms, the patient will be more or less exhausted, and the general indications, of course, will be obvious. The question, in the other *stages*, has not so much respect to the *kind*, as to the *force* and *degree*, of the practice.

When called to a patient who has the precursory symptoms of Fever, or even if he has advanced two or three days into the preparatory stage, after we have investigated the nature of the case, the first inquiry is, whether there be a rational prospect of *breaking up*, or procuring a *resolution* of the disease; if there is, to make the attempt is of immense importance. The difference between a few days' illness, and that of weeks, the loss of time and property, the suffering, the hazard of life, or of being left with a shattered constitution, are incalculable.

It is true, when the physician succeeds in breaking up the disease, he loses his fees for protracted attendance, and adds little or nothing to his reputation. Physic is the only profession in which, for any great length of time, in direct violation of the common law

maxim, a man can *take advantage of his own wrong*, and derive both reputation and emolument from mistakes, from doing badly, or from doing nothing at all; since it is rare that a patient recovers from any dangerous or protracted illness, without adding to the reputation of his physician, although the very disease itself, or its whole severity and duration, may have been entirely owing to misconception, and consequent mismanagement; so that the sarcastic remark, that "*a great cure is often only a great escape*," too frequently proves to be literally true.

When it is decided that we should attempt to *break up* the disease, the choice of means first demands our attention.

The means should be such as can be most *conveniently employed*, be liable to the *fewest accidents* in their execution, and though they might happen to fail of breaking it up, they should be such, as will *best moderate its violence*, *shorten its duration*, and, at the same time, put the patient in the least danger of *sinking* at a *critical period*, and also, best *prepare* him for the *subsequent* appropriate remedies. *Officium esse Medici, ut tuto, ut celeriter, ut jucunde, curet*, is a maxim of as much importance at this time, as it was in the days of Asclepiades.

The accurate *choice* and *adaptation* of remedies, not only in the beginning, but in every stage of the disease, is of vast importance, as on these alone, near-

ly the whole skill of the physician depends. If they do not *overcome*, or *modify* morbid action, they almost infallibly *concur* with it, and *aggravate* the symptoms, they were intended to obviate.

Various methods, and all of them occasionally successful, have at times been adopted for *breaking up*, or procuring a *resolution* of Fevers, having different degrees of merit, and different circumstances in their favour. The most ancient, and still the most frequent among the common people, is sweating, produced by external heat, and drinking freely of warm, aromatic infusions. Another popular remedy is abstinence. Physicians have the more generally resorted to powerful bleeding, drastic emetics and cathartics, vapour-bath, and cold affusion. Some foreign practitioners are said to have occasionally succeeded with large doses of narcotics. Strangury, when early excited by the use of Cantharides either externally or internally, has been frequently known to remove every symptom of Typhus.

It is not here necessary to discuss the comparative advantages or disadvantages of these different methods. There is no doubt, that they will each occasionally succeed; but their frequent failure, and subsequent *aggravation* of the disease, is also a matter of daily observation. Nor is there time to examine the various modes of practice, during the *progress* of Fevers, which have their different degrees of success, ac-

cording to the skill and dexterity with which they are managed;—but to proceed immediately to point out the peculiar plan of practice, which is proposed as the principal subject of this Essay.

When the Fever has a typhoid tendency, SLOW AND MODERATE PURGING WITH CALOMEL answers the indications just mentioned, better than any other method. It is the only one, of all the common devices for *breaking up Fevers at their access*, which, in my practice, has been attended with *any degree of certainty.* The Calomel mixed with any mild syrup, but not in the form of pill, should be administered in *small doses*—from two to five grains, every two or three hours, according to the circumstances of the patient, till sufficient catharsis is produced. If possible, the Calomel should be given in such doses, and at such intervals of time, as to be retained in the stomach and bowels *twelve hours*, before it produces its operative effect. But if catharsis does not take place in *eighteen hours* at farthest, it must be assisted by *Castor-oil*, or some other *mild* vegetable purgative. At the same time, it is proper to pursue a moderate, diaphoretic regimen; such as pediluvium, tepid aromatic and diaphoretic drinks, fomentations and sinapisms, or epispastics, as the local symptoms require. When the pain in the head is violent, a blister to the *forehead* will not only be of essential service in relieving this particular symptom, but will very much as-

sist the effort at *breaking up* the disease, by superinducing an additional new action. Warm bathing is also an excellent adjuvant in the severer cases. In Putrid-fever (Typhus-gravior) when the heat is *above the natural standard*, and the *skin dry*, we may also resort to cold affusion, with a cooler regimen; there being nothing in the Calomel practice, to interfere with its use, in *truly* hot cases. Cold affusion is however, *with us*, rarely indicated; as in the majority of our Fevers, which are decidedly of the *nervous* type, the heat scarcely exceeds the temperature of health, and is often *below* it, during their whole progress. If the catharsis incline to be excessive, it must be *promptly* checked by Opium; if too sparing, the vegetable cathartic is to be repeated.

When the patient has been previously purging himself injudiciously, with an ill chosen article, or the case is attended with a diarrhœa, or there is reason to suppose that the Calomel will pass *rapidly* through the bowels, or operate *harshly*, or even if there is much irritability of the system in general, it requires a *single medium cathartic dose*, with a sufficient quantity of *Opium* to stay it, at least, for *twelve* or *fifteen hours*. For a general rule, all the *anomalous* cases of simple Fever, especially those of the low, rapid, and sinking kind, which there is reason to apprehend might terminate fatally in one week, unless prevented by art, require Opium to be combined with the Calo-

mel from the very access, provided any evacuation is admissible; nor are they *safely* managed, unless the patient is kept *uniformly* and *perseveringly* under the influence of Opium to the termination of the disease.

This plan accomplishes much more than is usually done by emetics, or *quick* and powerful cathartics, is less inconvenient, and is much less liable to be *spoiled* by the awkwardness and blunders of nurses.

An emetic is rarely *well managed*, except by the physician himself; nor can active cathartics be much more safely trusted to the care of nurses. These articles, it is true, make a more sudden impression on the system, but at the same time, they are less favourable, and in a much greater degree *exhaust* the powers of life, or excite unmanageable and dangerous *irritation*, without having the same efficacy in *changing* diseased action. Nay, they sometimes *concur* with it, and add to its force, so that the patient frequently, and *justly*, thinks he should have escaped the disease, if he had not employed a physician. When, according to Sydenham's language, there exists a peculiar *epidemic constitution*, I think there can be little doubt, that slight cases of indisposition, which might have passed by without any medication whatever, have been frequently metamorphosed into severe cases of the prevailing epidemic, from the injudicious use of drastic emetics, and catharties. If I

am not mistaken, I often met with such, in my own early practice. I have also, in consultation, had occasion to witness very often, the justice of the remark, made some years since, by one of the ablest physicians in this State, that tympanitic abdomen, profuse hæmorrhages from the bowels, diarrhœa (he should have added sphacelation of the intestines) and many of the most dangerous, formidable, and unmanageable symptoms, are usually the consequences of the *abuse* of *drastic cathartics.*

A physician in full practice, during an epidemic, must make from twenty to thirty, and even from forty to fifty visits daily. He is not able, therefore, to execute *personally* any of his own prescriptions. In such a situation, some of the modes of practice, which would be the best in hospitals, are utterly inadmissible, or at least, can be employed very rarely by the family practitioner. Efficient bleeding, though it occasionally produces a resolution in hot Typhus, is always a *hazardous* experiment. In the lowest forms of this disease, especially in the *cool* cases, I have in several instances known it immediately fatal.

There is something *peculiar and specific* in the operation of Calomel, differing from every other medicinal agent; and *the more slow* in its operation to a *given point*, the more obvious is this difference. Its effects upon the stomach, small intestines, lungs, liver, spleen, pancreas, etc. have long been well known and ac-

knowledged, and either from these causes, or something not yet ascertained, its counteracting effect at the access of febrile diseases, under suitable management, is preferable to every other known article. Its moderate use, in small doses during the first stages of Fevers, for the purpose of *changing action* and *preparing* for a subsequent supporting and tonic course, has long been established, and rests on the highest testimony. When any important viscus is particularly affected, its employment is generally indicated beyond dispute. No one article so certainly *counteracts* and lessens morbid action, equalizes the excitement, and *prepares* the patient for the use of tonics. Judiciously used, it overcomes the *irritability* of the stomach, on the one hand, or moderates the *torpor*, on the other, which would otherwise *prevent* their successful employment, and produces a favourable state of the skin, and other excretory organs. By this management, the patient is fitted for *the Bark and other tonics*, *better* and *earlier*, than in the usual way. Indeed, whether the Bark is *advantageous* at all, depends almost entirely on the *first week's preparation*. To a neglect of this particular point, we chiefly owe the various and opposite testimony, with respect to the efficacy of this important article. As far as my own experience is concerned, I can positively assert, that I have never had a case of regular simple Fever, the very mildest excepted, in which the Bark and Opium might not

be used with obvious benefit, during the stage of exhaustion. By the judicious treatment of the disease, in its first stages, with Calomel, all the desired *preparatory effects* are produced, without materially diminishing muscular or arterial strength, or *wasting the vital powers.*

Every powerful agent occasionally is found to break up incipient disease,—and this circumstance is sufficient for the rash and desultory; but it does not satisfy the careful practitioner. His means must be not only strong and powerful, but it is indispensable that they be *safe.* Happily, slow and moderate purging with Calomel is very certain in its effect in changing diseased action; it is perfectly safe, and is attended with none of those doubtful and hazardous consequences, which often follow profuse bleeding, or drastic emetics and cathartics.

I readily acknowledge, that some anomalous typhoid diseases are, from the very access, so low and rapid, and the powers of life so nearly extinguished, as not to admit of Calomel. In cases where the stage of reaction is *absolutely wanting*, all attempts at preparation are absurd, since they are *not* indicated at all. These instances sometimes occur in Spotted-fever, Cynanche-maligna, Dysentery, Pneumonia, and Jail-fever, and are much too low and rapid in their course for Calomel to take effect. If it does produce its specific action, it will be of no more service, than in the

stage of exhaustion in regular fevers, where it is well known to be more liable to *coincide*, than to counteract. Nor will they, *at first*, be benefited by any kind of evacuation. In such *sinking* cases, there is one indication only, and that imperative; *to excite and support the powers of life*, waiving every other consideration. A mistake here is fatal, there being already a state of extreme exhaustion when the physician is first called. One venesection, or emetic, or cathartic, and the patient is gone for ever! The occurrence of such extreme cases is very common, of late years, but they are easily distinguished by any *tolerable* share of discrimination. There are also some other *irregular* cases of Typhus, in which Calomel is of little or no service, and for the management of which, no other rule can be given, than to be ready to meet each symptom *promptly*, as it occurs. But, as my principal design is with the Nervous-fever in its *regular form*, it cannot be expected that I shall particularize every possible variety.

However, the object is not *merely to prepare the system* for the subsequent supporting treatment, in order to sustain the powers of life under a protracted disease. With skilful management, we produce a much more important effect. *We usually obtain a complete resolution, and thus break up the disease itself immediately.* This is the point, to which it is more particularly desirable to turn the attention. It is confidently

believed, however surprising it may appear to those who have not witnessed the fact, that this simple process of *slowly and moderately purging with Calomel*, when employed *sufficiently early*, does not fail in more than *one instance in ten*, of breaking up the disease at its very commencement.

It will be readily observed, that it is not *purging merely*, as for this purpose, other articles might answer as well as Calomel, but that something farther is intended. It is proposed to *counteract*, to *overcome*, to *lessen*, or to *change*, diseased action, at the same time that the alimentary canal is cleared. On a little reflection, the possibility of such a combination of effects, from so efficient an article as Calomel, will cease to appear incredible.

Nor is it from the class of cathartics alone, that we expect something peculiar as *counter-agents*, in addition to their general *operative* effects. Antimonials have the emetic property in common with Ipecacuanha, but at the same time, make a very different impression on the powers of the system. Digitalis and Cantharides are both diuretics, but in every other respect, have very different properties. The same medicine also varies materially in its effect, according to the stage and other circumstances of the disease, and to the dose and manner of administration. Thus, some of our most active emetics, as White-vitriol and Arsenic, in a small dose, are powerful tonics; others, as

Antimony and Ipecacuanha, may become diaphoretics and expectorants, according to circumstances. These principles hold true, in a greater or less degree, with respect to most of the efficient articles of the Materia-medica. Calomel, when suffered to pass *quickly* through the bowels, can have but little preference, as a counter-agent, to other cathartics.

If however, from the negligence of the patient, we have not been called sufficiently early, or from any other untoward circumstance, we fail of subduing the disease, we have after all, at the end of the process of slow and moderate purging, gone about half through the necessary *preparation*, and have thus anticipated by several days, the *alterative* course, and probably shortened the disease, a week or more.

This is not a matter of speculation and theory merely, but of fact, resulting from repeated trials, during the experience of years. It is true, that like every other efficient method, it requires close *discrimination* and *attention*, with careful management, in order to reap the full advantage, and *ensure* success.

I am aware that cavillers have objected, that the mildness of the disease, after the use of mercurials, does not result from the treatment, and that nothing takes place, which would not have occurred under the use of any other means That such a confessedly Herculean counter-agent as Calomel, though at the same time it is perfectly safe and manageable in skilful

hands, can have no instrumentality in effects, which seldom or never occur, without medication, and which rarely occur from other plans—*Credat Judæus Apella!*

The effect of breaking up disease by this plan, takes place, not only during the incipient stage, but even occasionally after the disease is *exquisitely formed;* and in such cases, much too frequently to admit of the notion in question. Besides, the same reasoning may as well be applied to every other result of medical experience, and if once admitted to have any validity, would reduce the whole science of medicine, to a mere chaos of skepticism.

It may be asserted farther, that this does not vary very materially from the well known plan of treating the patient with moderate doses of Calomel, after bleeding, vomiting, purging, etc. But with a little attention, it will readily be seen to be essentially different; as that practice pre-supposes, that the disease will run its course, and only aims at modifying the morbid action. Besides, most of those who adopt it, appear to be ignorant of the necessity of *immediately following it up* with tonics, after the morbid action is changed. They often continue the mercurial course through the disease, producing an *artificial state*, in many instances as unmanageable as the original affection. Thus is an important remedy brought into disrepute by ignorance, and mismanagement.

By this time, I expect to find it objected, that the

practice is too indiscriminate; that not only the sinking cases, which are below the reach of Calomel, should be excepted, but that those which are so mild as to recover under almost any treatment, should also be excluded. I would reply, that cases apparently the most slight, are often insidious, and consequently, the most dangerous; and that all which are really mild, instead of being allowed to harass the patient for weeks, are the most certain of being ended in a few days, by the proper use of Calomel. Since it is unquestionably the fact, that those cases which continue fifty or sixty days, were *originally* mild and moderate; for a severe disease must have infallibly either exhausted itself, or the patient, much earlier.

Almost all the writers of the last ten years, who, without giving Rush credit, have adopted his practice of profuse bleeding, and drastic cathartics in typhoid diseases, are strenuous in recommending Calomel, and promise little success, unless they affect the mouth. It is astonishing that they do not know the fact, that the *alterative*, counteracting process is usually accomplished with perfect ease and safety, after slow and moderate purging; whereas, after their hazardous *waste* of the vital powers by depletion, it is still a matter of great uncertainty, whether they *can* produce a mercurial effect; and if it is produced, the event is still more uncertain.

If the method of practice recommended in this Es-

say, is productive of such happy results, it may perhaps be asked, why then, do you ever have any protracted or even unfortunate cases?

In the first place, it will be recollected, that the method of treatment, now under consideration, is designed to meet the disease in its *regular form.* The management of *anomalous cases* does not come within the main intention of this dissertation.

An important reason of occasional failure is, that we are not called *sufficiently early;* as it is well known, that after the *two first days* of the preparatory stage, there is no *certainty* of success in producing a resolution, though we occasionally succeed as late as the third, and even the fourth—or there may be an insuperable *prejudice* in the patient to the use of mercurials—or he may not suppose himself *sufficiently sick,* to submit to the *necessary* regimen. From these and similar considerations, we are occasionally induced to waive a practice, which, under existing circumstances, would be liable to mismanagement. Besides, the progress of the disease is sometimes *so insidious,* and the early symptoms *so mild,* that we are induced to let the proper period for administering the necessary medicines pass by; or as a medical friend, using a *nautical* phrase, once said, *there is not breeze enough to steer by.* It is a still more *frequent cause of failure,* that our patients have, for days, been so injudiciously *tampering with medicine,* as to disconcert every rational plan of management.

To do justice to any method of treatment, the physician must have the *sole* direction of the medication, from the very *access* of the Fever, without being annoyed by officious interference, from any source whatever. Without the *entire* direction and confidence of the patient and his attendants, there is no practitioner who can be responsible, in any disease, for the final result of his practice. The intermixture of parts of different and opposite plans of treatment, is worse than no medication at all; the disease is better trusted to nursing only.

To enforce the expediency of early medication, I would state, that, in the whole course of my practice in Typhus, of all who have applied within the first forty-eight hours, after the obvious access of the disease, *two* cases only have proved fatal; and I am pretty confident, that not one has failed, in which the patient had not been *tampering* with emetics or cathartics, previous to my being called.

When from these, or other causes, we have failed of breaking up the disease, the remaining *preparatory treatment* for the first week, demands our attention.

Whatever may be the opinion with respect to *critical days*, it is certain, that all *our* late typhoid Fevers have very regularly observed *weekly, critical periods.* It is an old, and very just remark, that in all *regular* diseases of this description, they are *generally* but little benefited by *the Bark*, and articles of a similar ten-

dency, till after a *prominent critical, or semi-critical change;* that is, not until *morbid irritability* of the stomach and bowels, on the one hand, or *torpor* on the other, is *overcome*, *local pains* and other urgent symptoms *relieved*, and *some time* in every *twenty-four hours* at least, the *tongue is moist*, and the *skin* and *other excretories are free*. *So imperative* is this *rule*, that I never knew a physician, who was *daring enough to violate it*. Notwithstanding all that the *prejudiced*, the *ignorant*, and the *malevolent*, so unblushingly assert to the contrary, I am confident, that *such a practitioner is not to be found* in Connecticut.

There are various means, which are adopted for the purpose of producing this particular state of the system. This kind of crisis, however, by the *usual management*, does not generally take place until the end of the *second week*, when the patient is too frequently *so much exhausted*, that tonics are apt to produce very little effect, or the system is still so *irritable*, that they cannot be borne at all. But it very certainly occurs, at the end of the *first week*, and occasionally some days earlier, especially in the more severe and rapid cases, when the following *alterative course*, or *plan* of *preparation*, in addition to the efforts already made in the attempt at *breaking up* the disease, is properly executed.

Calomel in small doses, united with *Opium sufficient to stay* it upon the bowels, and also, sufficient to allay

other irritation, and if the *skin* incline to be dry, and the *heat be much increased*, with *Ipecacuanha*, should be administered, as a *preparatory course*, during the first week. But in *most of the phlegmasiæ*, and in many *low* and irregular cases, the partial crisis, or semi-critical change before mentioned, is produced, and the system is fitted for tonics, in a much shorter period. When this happens, we must enter *immediately* on the *supporting course*, and except in a few obstinate cases of local inflammation, instantly *suspend* the Calomel. It requires as much judgment, to know *when* to *abstract* this article, as to know *how* to administer it at first.

This compound of Calomel, Opium, and (when necessary) Ipecacuanha, in order to produce its full effect, should be given at *short* and *regular* intervals, so that the system may *constantly be kept under the combined effect* of the whole of the articles. Each *succeeding dose*, therefore, must be administered a *little time before* the effect of the *preceding* has ceased. Calomel, in this form, except in a very few moderately torpid cases, where not previously used, is probably *never* serviceable, as an *alterative*, *after the first week*; nor, a few local inflammations excepted, even after *the semi-critical change* is produced, however early in the disease it may have taken place. This process is much assisted by infusions of Serpentaria, and other aromatic and diaphoretic drinks, and

the various circumstances, which belong to the proper moderate, diaphoretic regimen.

A combination of Calomel, Nitre, and Tartar-emetic, under the name of Rush's febrifuge, was introduced a few years before the *disappearance* of the *phlogistic diathesis*, and was found to excel every thing else, in the *early* and *preparatory treatment* of the diseases of that day. Calomel, Opium, and Ipecacuanha, if possible, have since been more serviceable in *our present typhoid Fevers.* But if we are not called, till near the end of the first week of *simple* Fever, *Calomel should not be employed*, except as a *slow* and *moderate* cathartic; for in this late stage, it is nearly impossible to touch the mouth, or to *affect the system*; and it is liable, when it has any influence, instead of diminishing, *to coincide* with the existing morbid action, and thus to *aggravate* the very symptoms, which it was intended *to counteract.*

The minutest circumstances are often necessary to be observed, in order to obtain the full effect of an important article. If they are overlooked, its operation is defeated. Thus, in highly *sthenic* diseases, Calomel will not produce its alterative effects, unless the system is first thoroughly *reduced*, by depletion and evacuation. In like manner, in the *lowest* typhoid diseases, these effects cannot be produced, unless the system is first *raised* by Alcohol and Opium, or what is perhaps preferable, by Capsicum, aromatics, and acrid

stimulants. In the phlegmasiæ, we are occasionally necessitated to use these adjuvants, because we cannot often dispense with such an important deobstruent; but as has just been suggested, in some simple fevers of great debility, there is no stage of re-action, of consequence, in such, no *preparatory* course of Calomel is indicated.

Here, *I beg not to be misunderstood.* It is by no means intended, ever to produce complete ptyalism, or, strictly speaking, *any ptyalism at all.* In this case, as probably in all others, this effect is to be avoided, if possible. Not that any material or permanent evil is the consequence; but it is productive of considerable temporary disturbance, without being in itself, of any service. The *cupreous taste*, the *slightest distention* of the gums, or sloughy whiteness, or erosion of their margin, and *soreness* of the teeth, the most *moderate degree* of the peculiar *fleecy appearance* of the tongue, and *fetor* of the breath, which are among the *first visible effects* of mercurials, will be *amply sufficient.* This is the state which it is desirable, the *very low cases* already excepted, to *keep up during the first week*, or till the sub-critical change supervene. By this plan, the patient is prepared for tonics, *a week earlier*, than by the common practice.

By this means, we almost invariably avoid *the exhaustion* of strength, the *black* and *sordid fur* upon the tongue, teeth, and lips, the *irritable state* of the

stomach and bowels, and in general, all the unpleasant symptoms, which result from the use of *Antimonials*, *Nitre*, *effervescing mixture*, *Cream of Tartar*, *vegetable acids*, etc. which are the means *too commonly used* in the preparatory course.

Notwithstanding the assertion, so confidently made, that no *medication is able to shorten* the duration of Fevers, it is as capable of proof, as any thing in medicine, that the foregoing plan, when properly executed, usually *lessens their period* one or two weeks, besides materially moderating their violence.

The only objection, of any weight, to this plan, is the occasional occurrence of salivation. But if this should be the consequence, notwithstanding the temporary inconvenience to the patient, it would be a matter of little moment, in comparison with the protracted suffering and danger, which are almost infallibly prevented. Yet, as there is much prejudice on this subject, and as its instant inconveniences are prominent, I am by no means disposed to pass over it lightly, but am willing to meet the objection in all its force.

In the first place, it will be proper to observe, that Calomel, in common with every other active medicine, is occasionally very much abused, and has great injustice done to its character, by a *heavy* and *awkward* management, by ignorance, by want of any *definite plan*, and by incorrect *theoretical* notions. One

of these *last*, is the absurd idea, that it is a *stimulant*, in the same sense as *Æther*, and *Alcohol*, and consequently proper, in the supporting and latter stage of Fever. It also disappoints expectation, from the want of *discrimination* of the particular symptoms, and *stages of disease*, sufficient to manage it in those cases, to which it was originally adapted.

I shall not stop here to notice the objections, which arise from the careless administration of Mercurials in *chronical* affections of the system; nor the mischiefs proceeding from the *habitual* use of this, and other active articles, particularly Gamboge, as a mere laxative; and of their liability to produce Dyspepsia, and chronic affections of the hepatic system and other viscera; since they can have no bearing on the subject of these Essays, which are confined to the treatment of *acute* febrile diseases. Besides, it is well known that the majority of chronical cases belong to patients, whose morals or habits are so irregular, that they can hardly be expected to do justice to any efficient practice. In regular practice, I *never* met with a case of *permanent* injury from Mercury, except among patients of this description.

It should be recollected, that what one man has not been able to accomplish from carelessness, indolence, skepticism, or want of suitable skill and dexterity, is no argument against the effect, which others *have actually produced*, and do *uniformly* produce:

and that what one man does *not* know, is no disproof of the facts, which are known by others. *Negative* testimony, against *positive*, amounts to nothing. The assertions of those physicians, who from a false theory, or from timidity, or indolence, or ignorance, or obstinacy, or want of opportunity, have not given a fair trial to a particular article, can therefore have no weight. Besides, we are more apt to record the unpleasant, than the favourable effects of an efficient article. Hence, we are inclined to give more than a due importance to the occasional inconveniences of Mercurials.

Farther, they reason on utterly false principles, and are too ignorant to merit the appellation of physicians, who imagine, that medicine has usually the same effect on the *diseased*, as on the *healthy* subject. The analogy is frequently very slight. The disease and the medicine act, and re-act, upon each other, and generally produce very different effects from what might have been expected, reasoning *a priori*. This remark applies with peculiar force to food, emetics, cathartics, tonics, and especially to Opium, Alcohol, and Mercury.

Salivation, however, is a much more *rare* occurrence, than is commonly supposed. If the management of the physician is in any degree dexterous and judicious, it does not, at any rate, take place in *one instance* out of *many hundred*. But if it did occur

in one instance in ten, and by means of it, so great a number were saved from the dangerous consequences of Fever, what rational objection could this afford to the practice? As it is a point agreed, that febrile diseases are the most mortal scourge of the human race, if ptyalism were the *certain* consequence of this plan, still it *ought* to be adopted; for it is so well known, as to have become a maxim with physicians, that when the mouth is *easily affected*, at the *commencement* of Fever, the subsequent disease is uniformly mild and manageable, and rarely, or never, mortal.

It is necessary here to observe, that *ptyalism, without the use of Mercurials, is* by no means a rare occurrence, though it is scarcely mentioned by authors. This symptom *often* attends almost any disease of the mouth and throat. There is also, though more rarely, a slight salivation, occasioned probably, by the mere irritation of Calomel in passing the mouth and fauces, which is no test of its having affected the system. The few cases of regular Fever, where Calomel, if properly and early administered, and suitably followed by tonics, has been supposed to fail, have been undoubtedly of one, or other, of these kinds.

Before dismissing the subject of Calomel, it is necessary to *enforce* one important point, with respect to the administration of this article, viz. That there

is no *certain* dependence to be placed upon its use, either as a *slow* and *moderate* cathartic, or as an *alterative*, unless the patient will submit to an *appropriate*, diaphoretic regimen. He must confine himself to his room, and in many instances to his bed; and, at the same time, use tepid aromatic and diaphoretic drinks, light liquid food, such as broth, milk-porridge, arrow-root, or the lighter vegetable and animal, mucilaginous and gelatinous preparations. Pediluvium, or warm-bathing, sinapisms, and in many instances epispastics, are indispensable auxiliaries. There can be no exceptions to this regimen, unless in the extreme, hot cases of putrid Fever, and in violent Synocha. In chronic cases, where we cannot confine our patients, Mercury is *always* a very capricious and uncertain medicine, and ought not to be used, as an alterative, while any substitute can be found.

After all, *indolence* and a *temporizing disposition*, are in truth the greatest obstacles, to the adoption of the Calomel practice in Fevers. It is to be feared, that the number of those who have sufficient *patience*, *observation*, and *skill*, to do justice to such an important article, will *ever* be small. The *discrimination*, *incessant care*, *close observation*, and *accuracy*, which are necessary to *insure success*, are irksome to some minds. They will never take the pains, necessary to *watch the effects* of an active medicine. Besides, they well know, that the public is frequently so cen-

sorious, as to raise a greater clamour on account of one salivation, than on account of ever so great a mortality, arising from the *negligence*, or *indecision*, of the physician. When the patient dies, there is nothing to be said ; but if he recovers, every gossip takes the liberty to criticise the practice.

I have no patience with the physician, who can suffer himself to be *overruled* by any of the preceding considerations ; if he is so situated that they are imperative, let him renounce his profession instantly, and cease to expose himself to the daily violation of the sixth commandment, through the omission of the Calomel and Opium, and supporting practice.

Although complete ptyalism is seldom excited, when Calomel is administered by a careful hand, yet it cannot be expected, that the timid physician, who *dreads* ptyalism as one of the greatest evils, will ever be induced to use this medicine, with sufficient energy to effect much, either in the resolution of Fevers at their access, or in changing the morbid action, which attends the preparatory stage. If he is induced to give Calomel as a cathartic, he will not *dare* to employ it to any extent subsequently ; whereas, unless there is a speedy resolution, the sub-ptyalism should be excited as soon as possible, and *continued* till the *commencement* of the stage of exhaustion. He will therefore always be surrounded with difficulties, in the severer cases. The means, which he naturally uses as

substitutes for Calomel, will be liable to excite such extreme irritation, on the one hand, that the patient will *seem* to be unable to bear, or profit much by, tonics, during any stage of the disease. And if this *irritation* is mistaken for phlogistic *inflammation*, the case is still worse; as he then continues his antiphlogistic remedies, for the purpose of extinguishing the *very* symptoms, which result from his own injudicious practice. On the other hand, the course which he has pursued, is very liable to produce so great an *exhaustion* of the vital powers, as to put the case beyond the reach of any of the *common*, exciting and supporting remedies. In this forlorn condition, nothing remains for the timid physician, but to stand by as an idle spectator, and witness his patient sinking under the unmanageable symptoms, which he has himself *created*.

When called in consultation, in such deplorable cases, we have little else to do, than to advise the *regular* and *energetic* administration of Opium, Alcohol, and blisters. In such cases, Wine, Cinchona, and the other moderate, exciting and supporting agents, are of little avail, or positively injurious; the system being so much reduced, and placed so far below their reach, that if they act at all, they are liable to produce a real *atonic* effect.

When a patient dies of Typhus-mitior, it is often of sphacelation of the bowels, and more com-

monly, about the fourteenth day; a period previous to which, tonics are rarely admissible, to any effect, under the *usual plans* of preparation. When he dies later, it is generally from exhaustion, or a relapse, rather than of the original Fever itself.

Having completed the *preparatory* course, and entered upon the tonic and supporting plan, at least a *week earlier* than usual, we are enabled to carry the patient safely over the dangers attending the most *important critical periods.*

This supporting course, varied in degree according to the nature of the case, requires *regularity* and *perseverance*, without *timidity* on the one hand, or *rashness* on the other. Either of these errors, would be liable to injure any peculiar mode of practice, and bring it into disrepute, before the public could give it a fair trial. The *strength* of the practice must be cautiously regulated by the *urgency* of the symptoms, and the known *obstinacy* of the prevailing epidemic. Without attending to these circumstances, and *anticipating* the *remote effects*, both of the *medicine* and the *disease*, no prescription can promise much success. The great difference between regular, and mere empirical, desultory practice, centers in this point.

Every mild typhoid disease does not require rivers of Wine and Bark, or Alcohol and Laudanum; nor is every such case necessarily mortal, though the *convalescence* is generally slow and tedious, when manag-

ed on the refrigerant and depleting plan. But after a proper use of Mercurials, the disease is generally rendered so mild, that a much *less* quantity of the *diffusible stimuli* is commonly necessary to support the patient, than after the ordinary management.

No one will question the fact, that upon the principle of *counter-irritation*, the most *absurd* and *unlikely* means *sometimes* overcome diseased action, so that the *very worst practice* is occasionally successful. This, however, is not often the case; for under such treatment, the mild cases generally become *severe*, and those which were *originally* severe, fatal.

These considerations, supported by innumerable facts, sufficiently demonstrate the absurdity of the doctrine of some practitioners, who assert, that tonics and the diffusible stimuli are never serviceable in Fevers, even in the stage of exhaustion. They fallaciously contend, that while the Fever continues, these articles aggravate the symptoms; and that after the patient is able to bear them, he convalesces as rapidly without their assistance.

I have only to observe, that in due time, moderate cases frequently recover without any medication; but that those, which are *originally* low and severe, are never cured, in such hands, and with such notions.

It must be remarked, however, that it is very wrong to assert, that all cases which might ultimately recover spontaneously, should be left to themselves;

as there can be no doubt, that with proper management, their violence may be moderated, their duration shortened, and the danger of their leaving the patient with a shattered constitution, may be entirely obviated. Nor is a disease, which is known to be mortal, by any means to be neglected. Mortal sickness, like the other incurable ills of life, can always have its urgent symptoms palliated. Life itself can be generally prolonged, to the comfort of the patient and his friends. A *judicious* medical course *never* injures, but in the end soothes and palliates, where it cannot cure. Besides, the power of medicine, in palliating symptoms, and in protracting life, is often more strikingly exhibited in the desperate, than in the curable cases. Nothing, therefore, can be more inconsistent with the genuine feelings of humanity, than from economical or sordid motives, to request the physician to suspend his visits, because the case of the patient is hopeless.

Although the *main intention* of this Essay, is to point out a method of treatment suited to the first week, or the *forming* and *preparatory stages* of regular febrile diseases, as well as to demonstrate the practicability of *breaking them up*, or of producing a *resolution* at their access, and particularly to establish *definite* and *precise rules* for the use of Calomel, yet, I cannot forbear making a few remarks upon the *method of support*, which it is necessary to pursue,

during the continuance of the disease, or the stage of exhaustion.

Many appear to have as inaccurate conceptions of the proper supporting *process*, as they have of the previous *preparation*. They have no idea of the immense importance of carefully applying the tonic and exciting remedies, with a *calm* and *steady hand*. They are a kind of *bustling* physicians, who think that there is nothing doing, unless they are perpetually making a *dash*, with bleeding, emetics, and cathartics, or cold affusion. No regular system of support is pursued, twenty-four hours at a time. They are never satisfied, unless they *carry every post by storm*. They generally resort to their port-folio, for recipes to the *name* of diseases and symptoms, without regard to pulse, type, stage, or diathesis. No point is better ascertained, than that every such indolent, inert, or rash practitioner, will most certainly lose every *originally low case* of Typhus; though many, which were *made* severe by mal-practice, will recover, in defiance of the worst medication.

There is, indeed, usually, something very imposing in rash and desultory management, on the ignorant by-standers. They console themselves for the loss of friends, by the reflection, that great efforts have been made; that all has been done, that was possible.

I have known a desultory, consulting, *recipe* prac-

titioner, in the absence of the attending physician, contrary to the laws of the medical police, interfere, and take a pound of blood, *in the last stage* of a typhoid disease. As may be supposed, the patient died the following night. The friends were much pleased with the counsellor, and censured the attending physician, because he had not bled, a *few* days sooner!!!

As something of an apology in a moral point of view, I would remark, that such blundering physicians usually impose on themselves, as well as on the public. Thus the most unsuccessful *accoucheur* I ever knew, who probably destroyed more *unborn* infants, than any other ten practitioners in Connecticut, flattered himself, and his employers, that he was peculiarly skilful.

Moderate doses of the *decoction* and *tincture* of the Bark, given at short intervals, and when the skin inclines to be dry, combined with Serpentaria, or similar diaphoretics, mineral acids, Wine, and *especially Opium in small doses, every three or four hours* at farthest, and even every hour, in the lowest cases, constitute the most successful method of supporting the system. In very low cases, diluted Alcohol is preferable to Wine; and Fowler's Mineral-solution, in doses from five to eight minims, or at any rate, in a quantity *short* of the *nauseating* point, should be administered every four or six hours. Where the Bark is *worn out*, or when it is rejected by the stomach,

this article is a most excellent substitute; but whoever uses it, without combining it with Opium, will, most assuredly, be *disappointed* in its effects. For a general rule, the internal use of this potent remedy should not be continued, in any disease, longer than *one week.*

I am aware, as my friend remarks, in one of his Essays, that it is maintained by two American writers, on Materia-medica, both of the highest respectability, that the Liquor of the Arsenite of Potassa possesses no tonic powers; that when employed in efficient quantities, and for a sufficient length of time, to overcome disease, it usually produces great debility, that it is not adapted to genuine asthenic cases, more especially to true Typhus, and diseases approaching to it, etc.

I take this occasion to observe, that all this is *diametrically* opposed to my own experience and that of my friends; and that we have been habitually in the custom of using it, for many years past. We have often employed it as a restorative, in general debility, whether the sequel of Fever, or the result of chronic disease; in Dyspepsia, Hemicrania, Intermittents, and more especially in Typhus, Pneumonia-typhodes, and Spotted-fever; and we can affirm, that it promotes appetite, and increases the power of digestion, that it augments the force and fullness of the pulse, reduces preternatural frequency, and increases muscular

strength and nervous energy, with as much *certainty* and *uniformity*, as any other article with which we are acquainted. We are not, however, disposed to dispute about the *term*, which shall be applied to the effects of this article, or the station that it shall hold in a system; though we confess, that if such properties do not constitute a *tonic*, we are ignorant, what does. For ourselves, we should be inclined to place it at the head of the mineral articles of this class, and to consider it, with Cinchona, as forming the connecting link between the mineral and vegetable tonics. We cannot but impute the discrepancy of opinion respecting this article, *to some defect*, or at least diversity, in the method of employing it. Sulphate of Zinc, Iron, and Cinchona, employed without *suitable* preparation, or in *improper* doses, or in many cases, without appropriate *adjuvants*, would harass the stomach and bowels, and soon *lose their character*, as tonics.

In the method of practice recommended in this Essay, there is *quoddam commune vinculum*—a certain common chain, which is liable to fail, when only a single link is weakened.

The various parts of this system of practice have such a close connexion, and have such a mutual dependence on each other, in order to produce a perfect and happy result, that it is proper in this place to pause—to make a brief recapitulation, with a few appropriate remarks.

In the first place, it is obvious, that no *one* portion of the treatment can well be adopted, without having a view to *all* the details. Thus, slow and moderate purging (when it fails of removing the disease) is but a good beginning of the alterative process, and rarely is sufficient, of itself, to produce the semi-critical change, so that the patient can be profited by tonics, unless it is followed, a few days, by a suitable course of Calomel and Opium. Nor is the disease commonly more than half through, when the sub-critical change has commenced. No time therefore is to be lost. The exciting, tonic and supporting course is now to be entered upon with *decision*, and pursued with energy and perseverance; for, if the proper time for administering tonics is passed by, there *often* arises such an *irritability* of the system, as in a great degree to preclude their use. More inconveniences proceed from indecision on this point, than from almost any other. From improper *delays* in the tonic course, the excitement will many times *appear* to kindle again, and produce a state, which *may* be mistaken for phlogistic diathesis. The loss of a single day, nay, a single hour, in low cases, is often irreparable.

Besides, the accidental symptoms which are ever liable to be met with, at the critical periods, are to be treated with the greatest promptness. Vomiting, diarrhœa, etc. must be *immediately* suppressed; *not* by

emetics and cathartics, but by *full doses* of Opium, blisters to the stomach, and other auxiliaries. Metastasis of the diseased action to the brain, lungs, or any other vital organ, admits of *no relaxation* in the general treatment; but often requires a vast *addition* to its force and strength, combined with the most vigorous and extensive application of blisters over the parts, with other topical remedies. As soon as the brain is known to be much affected, the upper part of the head is to be shaved, and a *large* epispastic applied.

The symptomatic phlegmasiæ, exanthemata, and hæmorrhagiæ, are, in this advanced stage of Fever, *always* of the asthenic or passive kind.

Hæmorrhages require Alum, Lead, or Capsicum, to be used with a free and bold hand. Charcoal, Capsicum, and Oil of Turpentine, may often be used with success, in tympanitic abdomen. The introduction of a tube into the rectum, frequently removes this troublesome symptom. Aphthæ, gangrenous sloughs, and similar symptoms, require the topical application of the most powerful astringents and antiseptics.

Without overlooking, by any means, the other appropriate remedies, Opium is the most efficient, and in fact, *the most indispensable agent* of the Materia-medica, in the latter stage of Fevers. It allays irritation, and regularly supports the system, better than

any other medicine, under the untoward circumstances which may supervene. The dangerous and troublesome *Coma*, which often occurs in the last stage of Fever, is more *effectually* overcome, and the counterfeit *torpor*, *in this stage of low Typhus*, is more *easily* counteracted, by the *regular* administration of Opium and Alcohol, than by any other means whatever. Their occurrence is more rare, when these articles have been previously used, than under the common treatment. But to produce its full effect, it is absolutely necessary, that each succeeding dose of Opium should be administered, *before* the exciting effects of the former, have *passed by*.

Much attention is necessary to this subject. When managed in this way, Opium becomes the *most efficient and safe, exciting power*, of the whole Materia-medica. By an *unsteady* and *irregular* administration, and at *too long intervals*, or in *improper* doses, it is, on the other hand, one of the most precarious.

The true standard for the administration of Opium, as a supporting agent, is to *increase* the dose, until the *febrile irritation, restlessness, and anxiety*, are subdued, and tremors and subsultus controlled. In the severe cases, *Coma* supervenes upon this state of irritation, to a much greater degree, where narcotics *have not been employed;* and when they have been previously used, and are abstracted, under the *false notion*, that they produce this symptom, it is *invariably* aggravated.

I have witnessed the truth of this, in numerous instances. No medical fact is capable of *more ample* demonstration, at the bed-side of the patient.

The disputes on this subject, arise *altogether* from the method of management. No person, who has not used Opium *habitually*, during the stage of exhaustion in Fevers, can reason *correctly* of its effects. This, like all other subjects, must be decided by testimony, and *true* experience. Here, as was formerly mentioned, *negative* testimony, or *false* experience, arising from a *wrong* theory, or an *irregular* use of the article, amounts to nothing. The testimony of that physician, who has confined his experience of White-vitriol, to doses of *ten grains*, is of just as much force, against its tonic powers, when it is used in doses of *one grain*, as that of those, who have never made a *fair trial* of Calomel and Opium, in the manner advised in this Essay.

Much is said of idiosyncrasy—but when the patient is *ignorant* of the medicine, which he is taking, I never knew a case of Typhus, that would not admit of Opium in the stage of exhaustion, when it was given in small doses, and *regularly* repeated, every three hours, or oftener. It is not the Opium, but the *manner* of administering it, which produces disturbance, and troublesome *secondary* effects.

As a general rule, to overcome *irritability*, with subsultus, spasms, and its other various symptoms,

Opium should be given in *full* doses, at intervals of three or four hours; for, when the dose is not sufficiently *large* to subdue, it seems to increase these symptoms. But, when it is used as a *supporting* agent, it should be administered in *small* doses, once in two hours; and in extreme cases, it is sometimes necessary to repeat it, *every* hour.

It may be proper also to remark, in this place, that where debility is attended with *irritability*, our *principal* reliance is to be placed upon Opium; but where debility is attended with *torpor*, our dependence must be placed *chiefly* upon Lyttæ, Capsicum, and other acrid stimulants; yet Opium in *appropriate* doses is essential, in either case. Alcohol, Mineral-solution, Oil of Turpentine, and a frequent succession of Blisters, are beneficial in severe cases of both varieties.

But medicine alone, is not sufficient to cure any protracted or obstinate disease. It is indispensable, that the patient should be *regularly* furnished with suitable food, which is both nutritious and easy of digestion. Gelatinous and mucilaginous preparations are far preferable to solid substances. During the stage of exhaustion, from half an ounce, to an ounce or two, of broth, milk-porridge, or arrow-root, &c. should be taken, a dozen times, in twenty-four hours, with the *same* regularity as the medicine. Milk with one third lime-water is good food, when the bowels are too soluble. In convalescence, oysters, and the

soft parts of shell-fish, answer the best purpose, for the stomachs which have been accustomed to them in health.

Typhus is no modern disease, but was known, and accurately described by Hippocrates, more than two thousand years ago, under the *very name* it now bears. His indications were, indeed, the same as ours; and his practice, considering his scanty Materia-medica, would be good, at this day; as he applied cold ablution, when the body was hot, cleared the stomach, if nauseated, by *mild* emetics, and supported his patients, by the use of the strongest Wine. Celsus fully concurred with Hippocrates, and pursued the supporting regimen, still farther. This is by no means the only instance, in which a reference to the ancients, would materially assist modern practice.

Even Van-Swieten, as antiphlogistic as his general notions are, asserts that *in all ages*, these diseases have been treated with alexipharmics, and he commends the practice. While I am mentioning authorities, I would observe, that Cullen, not Brown, was the father of the Opium practice. He appears to have first used it successfully, where the old physicians employed Musk, and he found it superior. If we except the fact, that Opium is *now* known to be effectual in *relieving* typhoid *coma*, and passive hæmorrhage, we have all its most essential properties better detailed in Cullen, than in any other writer. In-

deed, he and his cotemporaries, and immediate successors, managed the stage of exhaustion better, than any other body of physicians, the world ever saw.

In *low and sinking* cases, the recourse, which is usually had, to repeated blistering, or strong sinapisms, and the internal use of Volatile-alkali, Camphor, Æther, Alcohol, Cantharides, Capsicum, Oil of Turpentine, and the other highly exciting agents, is too well established to need comment. Nor is it here necessary to enter into the minutiæ of the treatment. The importance of attending to the customary evacuations; of administering food, such as broth, milk-porridge, and arrow-root *frequently*, in small quantities, and the proper regimen, have already been noticed, with the symptoms, which from time to time are liable to supervene. They are well known to every judicious practitioner. It is important, however, to enforce the cautions against *needless evacuation*, especially in the stage of exhaustion, in low and irritable fevers. In such cases, one motion of the bowels, in two days, is amply sufficient. This, if practicable, should be excited by an enema, rather than by a laxative; and in many instances, a suppository is preferable to either.

It is foreign to the design of this Essay, to enter into the history of Fever; or any where to describe symptoms, farther than is requisite, for elucidating some particular point of practice. It is presumed,

that the reader is *thoroughly* acquainted with the phenomena of typhoid febrile diseases, as they are detailed by Huxham, Fordyce, Wilson, and indeed, by every systematic, as well as by many able monographic writers. Besides, however extensive may be the reading, it is not expected that this dissertation can be of much service to any one, who has not had a considerable share of personal experience, in the epidemics of the last fifteen years. I will only farther observe, that in typhoid Fevers, however low and desperate the patient may appear, so long as the power of swallowing remains, and the *stomach is sound*, we should never consider the case, as hopeless. After all, an *energetic* and *steady* perseverance, in *supporting* the powers of life, generally prevails, and we finally succeed, in rescuing the patient from the jaws of Death.

Typhus, perhaps more commonly, attacks the young and middle-aged, yet it is not confined within any particular limits. The robust are nearly as much exposed, as the infirm. As it often originates in winter, it does not arise from marsh effluvia; nor is any local situation so salubrious, as *certainly* to exempt the inhabitants from its attacks. The same person has been frequently known to have the disease, three or four times; and occasionally twice, and even three times, in one year. Children of one or two years old, do not always escape, though they are more rarely subject

to it, than adults. For obvious reasons, its ravages are much less severe among the rich, than the poor. The physician, who has not noticed these circumstances, must have had very little *family* practice, these last fifteen years.

Notwithstanding the disease, of which we have been treating, is the *Typhus-mitior* or *Nervous-fever* of authors, yet these principles, with very little variation, apply to Typhus-gravior, Cynanche-maligna, Pneumonia-typhodes, typhoid Measles, many cases of Dysentery, Rheumatism, and every *low acute febrile disease.* For a general rule, *these*, as the course of most of them is usually shorter, in addition to the attention which their local symptoms demand, require a more *efficient* preparatory course, with an *earlier* and *freer* use of narcotics and tonics, and a more *prompt* support, at their *critical periods*, than simple continued Fever. Dysentery, however, does not in *half* the cases require Calomel. The pain and diarrhœa are to be resolutely subdued and controlled, by repeated, full doses of Opium. Calomel and Ipecacuanha are mere adjuvants, unless Fever is the *primary* disease. The bowels require moving, not oftener than in other asthenic complaints, and with the same cautions.

In the *common* Fever of children (the Marasmus of late authors, and infantile Remittent of others) whether attended with worms or not, slow and moderate purging with Calomel, followed by Calomel in small

and regular doses, combined with Opium and the common adjuvants, is more certain, than any other treatment hitherto discovered. Hydrocephalus-internus requires a still more efficient course of these articles. Calomel and Opium, *vigorously* and *perseveringly* administered, are the only articles, on which any *dependence* can be placed, for curing the Croup; indeed, they divest it of most of its terrors, and very rarely fail, especially, if they are preceded and assisted by emetics of Seneka, Squills, and Sanguinaria. Cholera-infantum is by no other method, so successfully controlled, as by the Calomel and Opium practice. In this, however, as in other chronic diseases, Calomel may often be used, with safety, much longer than one week, particularly, if assisted with regular support.

I have known the same plan (only the Calomel and Opium, in the *early stage*, were given in almost *incredible doses*, and in the stage of exhaustion, were *promptly* followed by the most energetic support) to succeed completely in Yellow Fever, and other malignant diseases, imported from Southern climates. Hydrocephalus-internus is *frequently cured* by an *energetic* use of Calomel and Opium. In typhoid Pneumonia, Rheumatism, and Dysentery *with Fever*, after clearing the alimentary canal, by appropriate purging, the pain should be *decidedly* conquered, and *kept under*, by Opium. But in many severe cases, cathartics are *utterly inadmissible*, unless combined with

large doses of Opium. Indeed, Opium in *sufficient* doses, combined with Calomel and Ipecacuanha, according to the symptoms, and judiciously followed by the Bark and Opium, after the semi-critical change, is nearly a specific in these diseases. I cannot forbear mentioning the superiority of slow and moderate purging with Calomel, in chronic *hepatic* affections, over the rash manner, in which it is *usually* administered, combined with active cathartics.

It will be obvious to all, that the whole scope of this Essay, applies *exclusively*, to the typhoid diseases of the present day. The great error, in the *preparatory* treatment of our modern Fevers, arises from a *false theory*, that they are phlogistic, or actively *inflammatory*, in the beginning. But, though this may *possibly* have been the case, fifteen years ago, it is not *now* the fact. *We* have not, at the present day, any such disease, as Cullen's Synochus. In a genuine Nervous-fever, there is an *entire absence* of active, inflammatory, or phlogistic symptoms, from its very commencement; and the *heat* and *irritation* of Typhus-gravior, although so often confounded with Synocha, are *essentially different* from it, and are *best relieved*, by a directly opposite course of practice.

In the part of the country where I reside, I have not witnessed more than *three*, decidedly active, inflammatory cases, either in my own practice, or in consultation, for the last seven years. Even the *local inflam-*

mations attending the Phlegmasiæ, are uniformly of the *passive kind.*

It is not engorgement or congestion, as some theorists would believe, but actual inflammation of the vessels and solids, which exists in typhoid Pneumonia, Cynanche-maligna, etc. without any sthenic diathesis whatever. *Post mortem* examinations, though they may show the existence of inflammation, can by no means ascertain its nature, whether it was active or passive, sthenic or asthenic. I have frequently seen *laudable pus* produced in local affections, during as asthenic a disease as ever existed; especially, when the patient had been properly supported with Opium, Alcohol, and Cinchona.

Much of the confusion of modern practice, arises from overlooking the *peculiar* diathesis, which attends inflammation. During the *prevalence of a very general, asthenic diathesis*, acute Rheumatism, Quinsy, Mumps, and even burns, wounds, and contusions, have no *true* sthenic or phlogistic character, and are most successfully treated upon a counteracting, exciting, and supporting plan. The inflammations of the coats of the intestines in Dysentery, of Erysipelas, of Gout, of Carbuncles, of Phlegmons in the vicinity of blisters, and the affection of the extremities preceding the gangrene of aged persons, are attended, for the most part, with an asthenic state of the system, and of consequence, have no phlogistic stage, but are passive,

or asthenic, from the very *beginning*. To these should be added, the passive inflammations of the brain, from the acute stage of Hydrocephalus, to the worst cases of Spotted-fever.

It is folly to quarrel with the word *inflammation*. It has always been used to mark the local affection in such diseases, and it only confounds the student, to introduce new terms. Teach him to distinguish the attending diathesis, and the other indications, and every difficulty vanishes. Another point is of equal importance to be ascertained—the heat and irritation, which not unfrequently are met with, in asthenic diseases, must never be confounded with the genuine, phlogistic heat of Synocha, or the *active* inflammation of sthenic diathesis.

It is a very pernicious kind of therapeutics, that principally treats inflammations according to their *seats*, as demonstrated by morbid anatomy. It is true, that in the *local* affections, which come within the province of the surgeon, this subject cannot be too minutely investigated; as on an accurate knowledge of the seat of disease, most of the success of operations depends. But in *general* diseases, in which the practice of Physic is mainly concerned, the question is not, by any means, confined to the inflammation or lesion of this, or that, particular membrane, or coat, or muscle. It is the *nature* of the inflammation, the *quality* of the morbid action, not merely its *quantity*,

or *precise seat*, and especially, the general state of the system, from which the indications of cure are to be deduced.

The fashionable, fine-spun pathology of the present day, amuses its professors in chasing after shadows, instead of seizing the substance. Inflammations and other lesions of the *same organ*, according to their quality, and the *diathesis* of the system, require various methods of treatment. Some inflammations of the tonsils demand astringents, or Capsicum, from their very access; others, demulcents and emollients. One form of Dysentery is treated by Opium, and Ipecacuanha; another, by Tamarinds and Cream of Tartar; a third, by large doses of Calomel and Opium. Some puerperal Fevers are subdued by Oil of Turpentine, and other stimulants and tonics; others, by venesection, and the antiphlogistic regimen. Neither the station which a disease holds in a system of nosology, nor the organs or membranes, in which it is primarily seated, nor the *quantity* of morbid action, can throw much light on the *kind* of practice.

L' expérience nous apprend journellement, qu'il est des phlegmasies, qu'on guérit par les émolliens; d'autres, par les résolutifs; d'autres, par les narcotiques; d'autres, par les révulsifs.

I can confidently assert, that the STRONG-HARD PULSE, the only *absolute* criterion of phlogistic diathesis, seems *never to occur*, in any stage of our modern

Fevers. The whole number of cases, which are considered as phlogistic, or *actively inflammatory*, by superficial observers, probably for want of a *proper standard* of comparison, will be found, on *close examination*, to be hot sub-putrid Typhus, attended with the *small-wirey* pulse of irritation only, or the mere *tumid, inflated, gaseous pulse* of authors, which yields at once, on moderate pressure, is *made worse* by antiphlogistic means, and is *improved* by a tonic and supporting course.

As a motive to extreme caution in practice, we should recollect, that when moderate typhoid Fevers, especially of the *torpid* kind, or of the *sub-putrid* type, are treated on the antiphlogistic plan, the *deleterious* effects are frequently not very apparent, for several days; but arrived at a *critical period*, the patient is liable to *sink at once*, into the arms of death, before his physician has scarcely dreamed of his being in danger. If an error is not *visible* in twenty-four hours, most physicians *rest contented*, that the practice is good. A very great fallacy. In Pneumonia-typhodes, of the sub-putrid or the sub-nervous type, when the subject is of a robust constitution, however *absurd* the treatment, he *rarely* fails, before the *fifth* or *seventh* day; and oftentimes survives till the *ninth*, in defiance of his disease, and the physician.

When this disease first re-appeared, as an epidemic

(in 1810—12) many of the best physicians in our country, mistaking it for a genuine, active Pleurisy, were confounded with the sudden result; and that often, within a few hours, after they had pronounced the patient convalescent. I have witnessed the same accident, repeatedly happening, in the practice of the present antiphlogistic physicians. This is, indeed, "running upon a lee-shore, under full sail!"

How soon the phlogistic diathesis may return, and the ancient depleting and antiphlogistic regimen be again proper, it is in vain to attempt to predict. But, while our Fevers continue to be exclusively typhoid, or asthenic, the general mode of management recommended in this Essay, for the *regular* cases, until some more ingenious method of practice shall be invented, will insure the highest prospect of success—will conduct the patients safely through the dangers of these diseases. It promises much the most *speedy* and *complete* convalescence. The cases, that are not cured by resolution, in the first week, *generally* continue no more than a fortnight; it is *extremely* rare, for them to be protracted, longer than three weeks. The Fevers of forty, fifty, and even sixty days, under this practice, are *unknown*. I have had frequent opportunities of comparing the results of different modes of treatment, in the same neighbourhood, and if possible, have underrated the advantages of the alterative and supporting plan.

Such, however, is the lamentable infirmity of human nature, that there are always a few, who from carelessness, ignorance, or obstinacy, will pursue their routine, without any *definite* ideas of pulse, stage, type, crisis, temperament, or diathesis; and without any *precise* notions of the properties, or application of remedies. These privileged destroyers of the human race, never reflect enough to profit by their own observations, nor even by their own mistakes; but continue to venture blindly on, and "after having been guilty of a thousand errors, *still continue* to blunder."

I have only to add, that the plan of practice here recommended, is not a deduction, from any peculiar theoretical notions, but is purely the result of the observation and experience of years.

It will be recollected that the subjects of this Essay are questions of fact, not of hypothesis. In *regular* Nervous Fever, will Calomel, under proper management, generally produce a resolution? Is a course of Calomel and Opium, a suitable method of treatment, during the stage of reaction? After such a preparatory course, is there any difficulty of supporting the system, through the stage of exhaustion, by Cinchona, Opium, and Alcohol? Whoever doubts these facts, must also allow me to doubt, whether he has ever given the practice, a fair trial. We cannot dispute.

I am not conscious of being attached to the dogmas of any known medical school, and consequently, have

not attempted to support, nor even to advance any theory, in connexion with the peculiarities of the proposed method of treatment. As far as regards the accuracy of the facts, detailed in this Essay, I can conscientiously adopt the words of Shakspeare, with a slight verbal variation.

> "I am no orator, as *others are;*
> But, as you all know me, a plain blunt man,
> That love *the truth;*
> I only speak right on;
> I tell you that, which you yourselves *might* know."

Probably, greater acquisitions have been made to the *scientific part* of medicine, within the last forty or fifty years, than within any other period, of the same length of time, since the age of Hippocrates. It would be a happy circumstance, could we as positively assert, that the improvements of practice, in acute diseases, have made *an equal progress*, with those of the auxiliary branches. The great discoveries in Chemistry, Botany, Materia-medica, and Physiology, with the accuracy of modern observations and experiments, have extended our knowledge, and given it a degree of precision, beyond any thing heretofore known. Formerly, a great object was to avoid poisons, and to discover their antidotes; of late, these very poisons rank among our most useful, and safe medicines. At present, their powers and effects are generally better ascertained, and the *tests* for their safe employment are better known.

than those of the most ancient articles. Formerly, the plan of treating diseases consisted in little more, than *watching*, and *palliating* the symptoms, as they occurred. Now, our primary indication is, in the forming, or preparatory stage, to produce a *new action*, a *counter-irritation*, *inconsistent* with that of the disease, by which it is either *broken up* at the access, or its course shortened, or its violence *essentially* moderated. Thus, by a *timely* counteraction, and by a more *early*, *regular*, and *efficient support* of the powers of life, during the stage of exhaustion, we have the means, not only, of alleviating a greater portion of the miseries, which afflict mankind, but we ought frequently, to succeed in curing many diseases, that were altogether beyond the reach of our predecessors.

ESSAY II.

MEDICAL AUTHORS ARE RARELY PRACTICAL PHYSICIANS.

The learned and philanthropic Rush candidly acknowledged, in one of his publications, that his practice was small, and very much confined to strangers, who visited Philadelphia. This is the case with authors in general. Most medical publications, are either the speculations of the young, who lack employment, and thus wish to introduce themselves to the public, or the *recollections* of men, who have, in a good degree, retired from business, or the theories of professors, who sit at their ease, in the academical chair. Even the great Boerhaave is said to have compiled his history of fever, which is well known to be very deficient, from books, before he was acquainted with the phenomena of acute diseases, as they appear in clinical practice. Nor is it at all probable, that his numerous public avocations, ever after, admitted of his being extensively employed, as a family physician. His personal experience, therefore, must have been limited to the cases he met with, in

hospitals and consultation. Few physicians in active life, in the full vigour of their faculties, have sufficient leisure for writing.

For these obvious reasons, the generality of the books which are read, and of the systems which are taught, are fifteen or twenty years *behind* the actual improved state of medical science. These are among the principal causes of that clashing of doctrines and testimony, which so much confounds the student, and leads to such skepticism and uncertainty, in our profession.

Age is naturally timid; youth when modest, is so necessarily; and learned professors usually have their systems, which require all their ingenuity to defend. Authors by profession, if engaged at all in practice, are generally employed as *counsellors only*, and therefore, have not the means of observing the *beginning*, *progress*, and *termination* of acute diseases. There is besides a reluctance, which most authors feel at publishing extreme cases, or those which are treated out of the common course, however successful the result. The epithets, theoretical, young, rash, visionary, hazardous, enthusiastic, and even boasting, headstrong, opinionated, are easily applied, instead of argument and facts; a party is created among the people, and truth and reason are drowned in noise and clamour. By these means, the peaceful and diffident, who would avoid controversy, are overawed and silenced.

The readers of professional works must ever be few, in proportion to the general mass of the population. A *popular* medical writer, therefore, will endeavour to *offend* as few as possible. The rapid sale, and general circulation of his work, are *his* principal object. Of consequence, he will rather follow, than attempt to correct, popular errors. He will either suppress his peculiar opinions, or modify them in such a manner, as to make them palatable to the general taste. The influence of reviewers and interested persons is so great, that it does not require a very extensive combination, to prevent the circulation, and even the publication, of any work, that combats popular prejudices. Though we live in an age, highly distinguished for many improvements, yet it is also, an age of much shuffling and time-serving. It is not probable, that, since the invention of printing, an honest and independent medical author was ever surrounded with more difficulties. The obstacles to the publication of facts and conclusions, in opposition to those which are generally received, are very formidable, and, to the timid, notwithstanding our boasted liberty of the press, are insuperable. Hence, we rarely have accurate cotemporary statements, either of disease, or practice.

Most writers give but a very imperfect account of the many difficulties, which are to be encountered, in the practice of physic. They speak of the most im-

portant cases, as slight things, and of the most dangerous and malignant maladies, with such coldness and indifference, and deal so much in general assertions, as to make but a feeble and indistinct impression, on the mind of the student.

The truth is, as much skill and fortitude are required, to carry a patient successfully through a severe disease, as are requisite for commanding a line-of-battle ship, in a naval engagement. Indeed, it is necessary for the first medical officer of the ship, if he would do his duty well, to be a man of superior talents, of a more enlarged mind, and sounder judgment, than the commander himself.

The symptoms of nearly every important malady of our climate, Spotted-fever, and other *sinking* cases of disease excepted, are detailed with sufficient accuracy, in foreign books; but it is impossible to cure many of *our* diseases, by *their* imbecile practice. Who was ever able to manage, with success, a severe case of Croup, or Colic, by the directions of any systematic writer? What experienced physician dare trust an extreme case of Fever, to the *scanty doses* of medicine, recommended by Huxham, or Pringle, or Cullen? Yet, the descriptions of diseases, and the indications of cure, are generally made with uncommon exactness, by these very able authors. To what system of Materia-medica shall we apply, for a full and accurate detail of the properties, or even the

appropriate doses, of Arsenic, Lead, Calomel, Opium, Alcohol, Cantharides, Capsicum, Sanguinaria, and several other important articles, which are now indispensable, in the practice of every judicious physician?

There is good authority for asserting, that the individual, personal practice of Cullen, was much more energetic, than *he* thought *prudent* to recommend in his writings. In common with most authors, he was afraid to hazard his popularity, by entering into minute details of his own private practice, though he was better acquainted with the powers of the Materia-medica, than any other physician of his day. Had not his students kept notes of his prescriptions, many of which have fortunately been preserved, we should have remained ignorant of his energy and decision.

We every day discover, that writers studiously conceal facts, which militate against their favourite theories and modes of practice. Even Sydenham, with all his candour, is accused, I believe justly, of suppressing an account of an epidemic, typhoid Measles, of which three hundred died a week, in London. Every practitioner knows, that his antiphlogistic treatment would be fatal, in such a disease. "*The lancet and small beer*," never cured such cases, though the moderate would occasionally recover, in defiance of the worst antiphlogistic practice.

A practitioner, who very studiously concealed his medicines from his employers, busied himself for

years, in every company, in uttering philippics, against Calomel and Opium, and slandering his brethren who used them; and thus, he annoyed all the physicians in his vicinity, by the prejudices he excited, among their patients. Yet, *this very man*, frequently, and sometimes carelessly, used these articles himself, and was among the first, who successfully managed Pleurisies, with Calomel and Opium!

What a serious and lamentable fact, in this scientific age, that the medical world should be subjected to such timid, feeble, negative kind of imposition; and that too, when the loss of numberless lives, is owing to the suppression of the requisite information!

Some writers employ such a portion of their works, and take up so great a part of the time of the student, in treating of the *exceptions*, that the general mode of practice is entirely overlooked. The most false inferences are the consequences. From a *hasty* perusal of the writings of a popular physician and able practitioner of our country, we should suppose, that bleeding was his *sheet-anchor*, in Pneumonia-typhodes. But, from an accurate analysis, it will be found far from being the case, and that his practice was, by no means, indiscriminate. In one town, he bled in *seven* cases only, out of *sixty*. Surely, in these cases, bleeding was quite an exception to his general method of treatment. It is very evident, that the success of his practice was owing, to his *free use* of Calomel, aided

by an *efficient* course of blistering. I have no doubt, that this remark will apply, with nearly equal justice, to Hey, Clutterbuck, Armstrong, and the several authors, quoted by Johnson.

The attention, also, of the student is constantly embarrassed, by the great stress laid on a *part* of the practice, and that part too, an exception to the general rule; while the Calomel and Opium, with the blistering, which, in general, are recommended, and, for the most part, form the *basis* of the treatment, are considered as only of secondary importance. The fact is, that notwithstanding the high eulogiums of these writers upon venesection, *efficient* bleeding, in reality, must be with them, as much an exception to the general rule, as with the American author.

Much of the confusion in medicine arises from authors' giving the same name to different diseases, or different varieties of the same disease, without specifying its peculiar characteristics. I am willing to allow, that Townsend's Fever had so much of the Remittent character, that it would yield to Cinchona, if given freely, immediately after thorough vomiting or purging. Hamilton's mild Fever of the torpid or *sub-nervous* type, was cured by purging every other day, and would probably admit of almost any moderate course. The endemic of London, in the days of Fordyce, was a mild Fever of the *sub-putrid* type, which, during the first stages, bore antimonials well.

Currie treats of a Putrid-fever, in which cold affusion operated like a charm. Their practice was unquestionably good, but not proper for Fevers of every type, and character. Hey, Clutterbuck, Armstrong, Welsh, Johnson, &c. may *possibly* have been in the habit of meeting with Fevers, in which it was scarcely practicable to waste so much blood, as to hazard the lives, or *future* health, of their patients; but, they could *never* be of the same type, as ours. Allow these last writers, all the credit which they can claim, it is no argument that *our* diseases, though they bear the same name, are to be treated safely and successfully, by the same practice; or, that three fourths of our low, cold, and sinking cases, would not prove fatal, under such an *indiscriminate* course of depletion and reduction. We only wish others, to give the same credit to *our* experience, which they challenge for *their own.*

It is well known, that much more energy and decision in practice are required, for treating a severe disease in New-England, than, judging from books, are ordinarily necessary in Great-Britain. In point of force, our practice is intermediate, between that of Europe, and India. The *small* doses of medicine, and the *distant* periods of administering them, as recommended by foreign writers, would prove nearly inert, in most of our acute diseases. Our chronic affections of the digestive organs and adjacent viscera,

though admirably described by Pemberton, Hall, Ayres, Faithorn, Philip, &c. unless they are slight indeed, will never yield to *their* treatment. Much *less* purging, and a much *more* efficient course of deobstruents and tonics, are demanded on this side of the Atlantic.

Notwithstanding the great difference in the degree, and in many instances, in the kind of practice, with the exception of *our* Spotted-fever, which is *very different* from the petechial Fever of Europe, our diseases, both acute and chronic, as has been before remarked, are as accurately described by foreign writers, as if they had resided among us. The nosology is precisely the same. Huxham, Fordyce, and Philip, mention all the asthenic symptoms, that we ever meet with, in our lowest Fevers. Even the paroxysms of *subsidentia*, which, if not promptly met, would sink the patient into the grave, had been seen by Fordyce, though he appears to have mistaken them for Hysteria.

A very common error of medical writers, is that of drawing *general* conclusions, from a *few insulated* facts. One author asserts roundly, that Typhus, as an epidemic, is peculiar to the winter months—another, that the Bark is inadmissible, in most of the Fevers of New-England—a third, that the same person very rarely is attacked with Typhus, a second time—a fourth, that Fevers are incapable of resolution, in any

case, &c. Such assertions, however positively made, are as false as the Koran. They, however, are calculated to misguide the student, and produce nothing but error, confusion, and skepticism.

Authors, according to pre-conceived theories, appear to take pains to *confound* diseases, and to *distort* facts, in order to suit a particular purpose. Pneumonia-typhodes and Spotted-fever (Phrenitis-typhodes) are often considered as the same; though to an attentive observer, they are as distinct, as Pleurisy and Rheumatism. Yellow-fever (Gastritis-typhodes) is often confounded with Putrid-fever, on the one hand, or Bilious-remittent, on the other, as best suits the disputant. Yet, every one *may* know, that the Yellow-fever frequently appears, where Intermittents are absolutely unknown. To crown all, it has lately been asserted, that Typhus owes its origin to marsh effluvia!

It would be well, if some judicious physician would re-peruse the writers of the last fifteen years, and publish a general review, pointing out to the student, the false facts, and hasty generalizations, with which they obviously abound.

Systematic works, are liable to give very false impressions of the type and diathesis, of *most* of the acute diseases, which actually occur in practice. It is much to be questioned, whether any *severe* and *wide-spreading* epidemic, except the Small-pox and Measles, was

ever of the sthenic diathesis. From a considerably extensive reading of writers of various ages, and much reflection on this subject, I am free to confess, that I do not know of *one such* sthenic epidemic, in the annals of medical history.

Every devastating disease, which has amounted to a pestilence, whether Cynanche, Pneumonia, Dysentery, Cholera, Spotted-fever, Yellow-fever, Sweating-sickness, or Plague, has been of a *decidedly* typhoid type, and asthenic diathesis. Even epidemic Catarrh, though as respects the hazard of life, it is a mild disease, is unquestionably of this character. The most active, acute, or sub-acute disease, under proper treatment, very rarely, if ever, is sthenic, longer than one week. Though there can be no question, that when the general diathesis is highly sthenic, sub-acute affections of the joints, lungs, liver, spleen, &c. if *feebly* managed, or *neglected* at first, occasionally preserve their phlogistic character for a much longer time. Chronic complaints, though often attended with irritation, or even passive inflammation, are *always* asthenic. To these may be added, nearly, perhaps all, the maladies, which *exclusively* belong to natives and old inhabitants of tropical climates, with most of the diseases of camps, fleets, large cities, and crowded manufacturing establishments, as well as those arising from sedentary employments.

An energetic writer indignantly breaks forth, in the following exclamations. "What then is the condition of man, in this frail mortal state! Has he a constant tendency to rise above health? Is it the sole business of the physician, to debilitate and derange his solids, to abstract and impoverish his fluids, in order to *reduce* or *bring him down* to the standard of health? Such practices have been the scourge and devastation of the human race, for more than two thousand years."

Hence, it is evident, that the vast majority of the diseases, which prove fatal to mankind, belong to the asthenic class. Yet, we begin with our pupils at the *wrong end*, and teach them, at first, the doctrines of phlogistic diathesis, and sthenic inflammation, which are only exceptions, in the great mass of practice. Most of our young physicians enter upon their profession, entirely ignorant of typhoid diseases, and under such prejudices and prepossessions, that they rarely get the better of them, during their lives. If the course of medical instruction were reversed, they would be taught, that phlogistic diseases were mere exceptions, among the numerous maladies to which mankind are subject, and that they comprehend but a very small proportion of the cases, to be met with in actual practice.

Besides, a physician who is in the habit of treating typhoid diseases almost exclusively, when he occa-

sionally meets with a sthenic case, is at no loss in his diagnosis, but, at a glance, will recognize its character.

The reverse is by no means true. An antiphlogistic practitioner is always confounded, at the occurrence of Typhus; and nothing short of repeated failures and disasters, will be likely to teach him its real nature.

A knowledge of the phenomena of diseases, and of the diversified character of those which are nosologically the same, is the only means of preventing indiscriminate practice, and of teaching the hazard of relying exclusively on reduction or support, without proper counteraction. Nothing is farther from the truth, than the doctrine of the unity of disease, or of the unity of the action of the various classes of medicine.

In acute Fevers, the diffusible stimulants are rarely indicated, to any extent, till after a proper preparatory counteracting course; and before pure tonics will answer, still farther preparation is necessary. In chronic diseases, except for obviating some particular symptom, most of the diffusible stimulants are scarcely admissible at all. The morbid action is to be changed, by appropriate deobstruents and alteratives, and then, we employ the vegetable and mineral tonics; or we carry on both the processes, at the same time. In neither acute, nor chronic complaints, can we so far simplify, as to rely on depletion alone, or support alone.

Every medicine appears to have a property of its own, to produce a *specific* action, in addition to its prominent operative effects of vomiting, purging, sweating, &c. for counteracting and lessening, or coinciding with and increasing, some peculiar morbid state of the system. It is the business of the physician, to discover that state, and to apply the appropriate remedy.

However, we must be cautious of generalizing too much, and of indulging in an indolent routine. Although all diseases, as regards reduction or support, are either sthenic or asthenic, yet we are, by no means, to lose sight of the various kinds of counteraction; it is a main indication. We must also distinguish, accurately, those agents which tend to counteract, from those which are liable to coincide with, the *peculiar* morbid action.

When an emetic, cathartic, diaphoretic, expectorant, diuretic, or deobstruent, is required, there is something more to be done, than merely to turn to a Vade-mecum, or book of recipes, to select an article. Will the medicine counteract, as well as produce its operative effect?

From these considerations, it is evident, that every *efficient* patent medicine must, necessarily, be hazardous, either in its present effects, or remote consequences; as it is adapted only to the *name*, or at farthest, to a symptom of a disease, without knowing,

whether it is likely to prove a counteracting or coinciding agent. No honest man, therefore, can issue such nostrums; nor, if he is conscious of the mischief which he is liable to produce, can any honest man vend them.

The practitioner who follows a routine, and prescribes, by recipe, to every disease or symptom, or is limited by the rules, which speculative authors have dictated, from their closets, is nearly as great an empiric, as the dealer in nostrums. The only difference, that I can perceive, is, that he keeps his panacea in his own hands. There was a great deal of force, and too much truth in the sarcastic remark, that a medical diploma is sufficient to suspend, through a whole kingdom, the penalties annexed to a violation of the sixth commandment.

ESSAY III.

DISEASES ON THE RIVER CONNECTICUT.

An *accurate* history of the epidemics, which have appeared, within the last fifteen years, on the Connecticut, from its mouth, to the boundary of Massachusetts, would give more light on typhoid diseases, than all, that has hitherto been published, on this subject, from the age of Hippocrates.

Typhus, though formerly the endemic of this region, had disappeared, unless in some very limited districts, from twenty-five to thirty years. As far as my information extends, it first re-appeared in this section of the State, in the County of Hartford, between 1800 and 1805; and it was four or five years, or even a longer time, before it reached the sea-shore. This disease seems to have made its appearance, five or six years earlier, in New-Hampshire and Vermont: so that, it must have been about ten years, in extending itself, from Dartmouth-College to the mouth of the river. It is now common, in all the Eastern and Middle States.

For a considerable time, there was an *intercur-*

rence of mild phlogistic Fevers, or more probably, moderate Fevers of the *sub-putrid* type, and the general diathesis *seemed* to be unsettled. But, within the last seven years, the Small-pox itself, within the extent of my observation, has been more frequent, than a pure Synocha.

Pneumonia-typhodes, as an epidemic, was well known to our ancestors, under the name of *Malignant-pleurisy;* but it had nearly disappeared, from 1760, to 1810; when, after fifty years' absence as an epidemic, no wonder, it was at first thought a new disease. Spotted-fever, a disease in which the stage of re-action is *absolutely wanting*, first appeared in Massachusetts, in 1806: and, as an epidemic, was in reality a new and non-descript fever.

But, the great and decided change seemed to take place in 1807. In the latter part of the summer of that year, an Influenza, more universal than any within the memory of man, prevailed over all the eastern and middle States, and was of the most decidedly asthenic character. Not a person in five hundred escaped; nor was there one case in a hundred, which was not attended with debility, from the very access, to the close of the disease. Lassitude and languor, with a moist skin and weak pulse, were its attendants, in every stage. From that epidemic to the present day, all our acute diseases have been asthenic, and progressively increasing, in the severity

and irregularity of their character. The exceptions are so very few, as not to be worth naming.

The exemption from wide-spreading and mortal epidemics, during the period from the revolutionary War, to about 1805, was so great, that many physicians passed the whole term of their practice, and scarcely met with a single, well marked, *original* typhoid disease. It is confidently believed, that the health of this section of the country exceeded that of the South of France.

Within the last four or five years, I have had opportunities of witnessing some of the febrile diseases, in eleven, of the fourteen towns of Connecticut, which lie adjoining the river. I can, therefore, decide with the utmost confidence, concerning the nature of the Fevers prevailing in this section of the State. There has been much variation in the violence and malignity of different seasons, and different cases; but the diathesis has been uniformly the same. No one, in my excursions, has ever been able to show me a single sthenic fever. The few hot cases, which I have seen, have been sub-putrid, not sthenic.

Our modern Fevers assume every imaginable *form*, and *degree* of violence and irregularity; from the Influenza, which frequently admits of the patients' attending to their ordinary business—to the Spotted-fever, which sometimes destroys life, in six hours. They all, however, agree in *one particular point*, the

absence of the strong-hard pulse. They all, likewise agree in their *general* mode of treatment; an *alterative, diaphoretic, exciting*, and *supporting course;* varied indeed, according to the symptoms, from infusions of Thoroughwort, Hops, and Chamomile, or Wine-whey, on the one hand, to Opium, Alcohol, Cantharides, Arsenic, Oil of Turpentine, Capsicum, and Phosphorus, on the other. The difference in the severity, violence, and rapidity, in different towns, and in different seasons, is extreme. In some seasons, our Fevers are so mild, that almost every one will recover, under moderate practice; in others, the utmost decision and vigilance in the treatment, are demanded, and, after all, there will be a number of unsuccessful cases. No one, however, can well realize their typhoid nature, without *having seen* them. Nor can the *speculations* of *strangers*, or *occasional visitors*, avail against *our uniform experience.* Such, notwithstanding, is the skill of our physicians (the very few who follow a depleting and refrigerant plan excepted) that the mortality, at the present day, is not great, though the diseases do not appear, in the least, to have abated in violence.

Probably, there does not exist in the world, an abler body of *practical physicians*, in *acute* diseases, than in the Counties of Hartford and Middlesex. In the County of Middlesex, I do not know one antiphlogistic practitioner, in Typhus. With the excep-

tion of the peculiar process of *slow and moderate purging with Calomel*, for breaking up disease at its access, and the extreme caution, with which I use *drastic* emetics and cathartics, in low Fevers, and also the peculiar importance, which I ascribe to the proper management of the *preparatory* stage, I perfectly agree with a great majority of them, in the *general* mode of practice. During the stage of exhaustion, our indications and treatment are the same precisely. They are mostly plain, *practical*, common-sense men, making but *little* pretensions to science, and *none* to theory; too much engaged in business, to publish the result of their practice; and too modest to *puff*, either themselves, or their brethren. The consequence is, that the public is almost entirely ignorant, of the *character* of the prevailing diseases, or the *merits* of these gentlemen, as sound and successful practitioners.

It is a great error to suppose, that good physicians are to be found only in large cities. So far from this being universally the fact, it is probable, that reforms are more difficult, the progress of improvement is much slower, and the eradication of ancient prejudices, less easy, in them, than in the more scattered population of the country. In Connecticut, if a practitioner were to bleed a gallon for the Colic, as in La Roche's case, or to deplete in the last stage of a malignant petecchial Fever, or to salivate by barrels, for sub-acute inflammation of the lungs, as

in Hale's case, or to make his patients stand on their feet, after the exhaustion of parturition (these are facts, not caricatures) he would not only lose his business, for his ignorance, rashness, and barbarity, but he would also be amenable to the laws, for such shocking mal-practice. Heavy damages have been recovered, in more questionable cases. Yet these preposterous measures are not uncommon, in some large cities, at this very day, and are sanctioned by some of their first men.

It is an incontrovertible fact, that not only our section of the country, but that most of the United States, within the last fifteen years, have been visited with several malignant epidemics.

The term *malignant* is applicable to every severe and rapid, acute febrile disease, which is liable to prove suddenly fatal, unless more than ordinary decision and energy of practice are adopted. It is alike applicable to either nervous, or putrid Fevers, when they are cured with difficulty, by the common methods of practice. Jail-fever and Spotted-fever, Yellow-fever and Typhus-gravior, generally speaking, are all malignant; though the two former are decidedly of the nervous, and the two latter, of the putrid type. The obstinacy, severity, irregularity, and rapidity of a disease, together with a degree of hazard, that is not likely to be noticed by common observers, constitute its malignancy.

As far as regards such severe and mortal epidemics, the impossibility of forming an accurate judgment, either of the sinking diseases, which have no stage of re-action, through their whole course, or of those, in which the re-action is so feeble, as to admit of no refrigerant or reducing article with safety, or of the proper practice, in such cases, and the absurdity, nay, the moral criminality, of censuring methods of treatment, from abstract hypothetical reasoning, or what is still worse, from the slanders of the ignorant and malevolent, was fully exemplified during the Spotted-fever of 1809, in Hartford, and afterwards, during the Yellow-fever in this town, in 1820.

Every one, except an ignoramus, is acquainted with the extreme malignity of the Yellow-fever; but of the Spotted-fever, as seen in the worst cases, with other diseases, in which *subsidentia* or sinking predominates, without any, the least, stage of re-action, or of the cases of common Typhus, in which, either excessive irritability, or excessive torpor exists, joined with extreme exhaustion, words are incapable of conveying an adequate idea. Such diseases, and their phenomena, set language at defiance, and all description fails. As well might we attempt to teach the blind, the beauty of colours, or instruct the deaf, in the harmony of music. Indeed, the case is more hopeless. They, who have prominent defects in their natural organs, modestly acknowledge their deficien-

cy, and their incapacity of deciding upon subjects, beyond their reach. But, many physicians will reason upon diseases, of which they are altogether ignorant, and dogmatically decide, from a supposed analogy to those with which they are acquainted, and thus, they lay the foundation of theories and prejudices, which no subsequent statement of facts, nor even the most positive proof, can remove. Nothing short of a long course of fatal experience, and repeated ocular demonstration, is effectual, to eradicate such inveterate prepossessions.

It is an indelible blot in the human character, that periods of the greatest public calamity, more especially those of mortal sickness, and malignant epidemics, should so often excite into action, all the malevolent passions, that ever lurked in the breast of man. There is, too often, an open rebellion against the dispensations of providence. The physicians are charged, as being the authors of the mortality. This persecution usually falls on the most eminent—men who are distinguished for their humanity and skill in their profession ; as these must, necessarily, have a very great proportion of the malignant and fatal cases, entrusted to their care.

The disgraceful scenes, which were acted in Hartford, during the prevalence of the Spotted-fever, and which were repeated, on the appearance of the Yellow-Fever, in this town, can never be forgotten.

The philanthropists, who from no other motives than humanity, and an ardent zeal in their profession, daily and hourly hazarded their lives, by visiting those dens of infection and mortality, were loaded with the most slanderous abuse, and "*ingratitude more strong than traitors' arms.*" As far as practicable, their business was destroyed, and their reputation murdered. Such wicked, preposterous, and ungrateful conduct, at a time when, if ever, all the co-operation and sympathy of friends is necessary, to encourage a physician, in the arduous performance of his duty. makes an honest man sick of human nature, and ashamed of the depravity of his species.

ESSAY IV.

FALLACY OF POPULAR REPORTS ON MEDICAL SUBJECTS.

In justice to myself, I must crave the indulgence of making a few additional remarks, on my own practice; as I may still be liable to be misunderstood, or to have my opinions on this subject, *wilfully mis-stated.*

I have never been so fortunate, as to meet with an opponent, who *would* take the pains, or listen to me with sufficient patience, to become acquainted with my principles; or who *could*, even if his life were at stake, give an impartial account of my *general* practice. The consequence has been, that the most absurd reports, and the grossest mis-representations, have been circulated, with respect to the principles and practice, which I have adopted.

Ordinary cases of regular Nervous-fever, it is agreed, *after the preparatory process is accomplished*, require only a light and moderate, though uniform, support of Wine, Cinchona, and small doses of Opium;

and, in time, *might* recover, under almost any kind of treatment. But, where the powers of life, from the *original* malignity or severity of the disease, or from previous neglect or mis-management, either of the physician, patient, or nurses, are almost exhausted—the last drop of oil nearly burnt out,—and the expiring wick is only glimmering in the socket—as long as there is sufficient excitability remaining, for medicine to act upon, that physician is a murderer who stands by, and does not make the strongest exertions, with the most efficient articles. In such extreme cases, I do not hesitate to advise Cantharides, Capsicum, Alcohol, Mineral-solution, Oil of Turpentine, or even Phosphorus; and in a word, the combined action, of several of the most highly exciting and tonic articles of the Materia-medica. A *steady*, *regular*, and *careful perseverance* in their use, as I have before observed, rarely fails of restoring the patient, who is not already, *in articulo mortis*, in the agonies of death.

In a few instances, I have prescribed, for days, twenty-five grains of Opium, a dram of Mineral-solution, and two pounds of diluted Alcohol, in twenty-four hours; and in *every one* of them, the patient recovered. In diseases of such extreme exhaustion, Cinchona, Wine, and the more moderate excitants, would have been *positively* injurious, by acting as atonics. In one instance of Yellow-fever, in 1819, in consultation with a friend, we gave four hundred

grains of Calomel, in four days, with success. So great was the torpor, that not more than seven or eight grains of Opium were necessary, in the twenty-four hours, to keep this quantity of medicine from running off from the bowels.

It is exceedingly difficult, nay, impossible, to give a rule for the doses of medicine, and the periods of administration. The temperament of the patient, the severity of the disease, the stage, the preponderance of irritability or torpor, require endless variations. However, the more generally, from half a scruple to half a dram of Calomel is required to purge, when it is given in divided doses. In the preparatory course, from six to twelve grains of Calomel, combined with Opium, from two to four grains, will usually be sufficient in twenty-four hours. These generally need the assistance of infusions of Hops, or Serpentaria, or Wine-whey, in moderate quantities. Unless the skin is hot and dry, neither Ipecacuanha nor refrigerants, are to be used, because they are supposed to be *febrifuges*. In ordinary cases, during the stage of exhaustion, three drams of decoction of Cinchona, with one or two drams of Huxham's tincture, and five to ten minims of Laudanum, every four, three, or two hours, is the best practice. A little food should be alternated, between the doses of the medicine. Opium, given at the distance of six or eight hours, or only at bed-time, generally does more

harm than good. Alcohol, very much diluted, or Wine, is proper drink, as well as the mineral acids.

Yellow-fever requires, most commonly, from two scruples to a dram of Calomel, for the first twenty-four hours. The quantity of Opium, varies almost infinitely, according to the presence or absence of irritability. Sometimes, one grain, every four hours, is amply sufficient; at others, two grains are required, every hour. In such violent and rapid, malignant diseases, *ordinary doses of medicine are worse than nothing*, and the *timid physician* is the patient's greatest enemy. For a general rule, Cinchona, and other tonics, as well as narcotics and diaphoretics, are much better administered in a liquid form, than either in pills, powders, or electuaries; though, when the stomach is *very* irritable, Opium, Capsicum, &c. should be given in pills.

However, I am in the habit of meeting, *by far*, the greater number of severe cases, in consultation. The extremes of exhaustion *very rarely* occur in my own practice; and *never*, in *regular* Fevers, where I have had the management of the patient, from the *beginning*. If properly *prepared*, the first week, though the attempt at *breaking up* has failed, yet, if the succeeding treatment has been, any wise, judicious, it is scarcely possible for the patient to sink into the lowest state.

I have frequently observed, that I use the Bark *much more freely*, and have occasion for a much *less*

quantity of Opium, Alcohol, and other highly exciting agents, than many physicians; though from the fact, that consultation is rarely required, except in low, and sinking cases (from my *energetic* prescriptions in such instances, where the stomach is good, and *the attending physician is likely to be faithful in watching the case*) an idea directly opposite to the truth, with respect to my *general practice*, might be formed from *inattention* and *superficial* observation.

An essential part, as I apprehend, of the skill of managing Typhus, consists in *safely* and *early*, counteracting, or changing the morbid action, before there is a *dangerous waste* of the vital power. I cannot too much enforce this important point, on which *all* the peculiarities of my method of treatment depend.

I must farther remark, that it is evident, from the numerous articles mentioned in these essays, that neither in my practice, nor in that of the friends with whom I am intimately associated, do we confine ourselves *exclusively* to Calomel and Opium, in the treatment of Fevers. They are indeed, indispensable, and of more importance, than any other medicinal agents, in all *regular* typhoid diseases, for *counteracting* and *changing* morbid action. In the preparatory stage, therefore, our practice is simple, and in regular cases, we use only a few articles; nor, where the exhaustion is slight, and there are no irregular symptoms, do we always prescribe Opium, Cinchona, or even Wine.

But, for exciting and supporting the powers of life, in the lowest cases, and meeting new or anomalous symptoms, we are in the habit of availing ourselves of the most extensive Materia-medica, both indigenous and exotic. Not an article has been mentioned in these Essays, besides many others necessarily omitted, which we do not occasionally employ; and we flatter ourselves, that we are acquainted with their properties, and their *present* and *remote*, their *operative* and their *alterative*, effects on the system, both in *health* and *disease*, as far as has been hitherto discovered. Our great aim is, to obtain a *definite* and *precise* knowledge of their various powers, and of the *precise tests*, which indicate their employment, continuance, or suspension. We do not, by any means, allow ourselves to make new, or hazardous experiments, or to administer any article, without the expectation of some *known* and *determinate*, *safe* effect.

In the beginning of every Fever, it is our great aim, to excite such a *new* action as is *inconsistent* with the disease, which, at the same time, that it *counteracts*, is perfectly *safe*, and neither endangers the *life*, nor *future health*, of the patient.

The counteracting process requires caution and skill in the execution. The *rashness*, which is too common to youth, and the *imbecility* to which age is liable, are to be *equally* avoided. It is necessary, that this new species of excitement should be *uniform*; and, by

no means, should we keep the system half the time under its influence, and by abstracting the medicine, subject it, the other half, to the ravages of the disease, as is the method of the desultory, the rash, and the empirical. The remedies, therefore, are to be administered *frequently*, at *stated* times, and in *regular* doses, and *persevered in*, long enough after the symptoms, which they are intended to meet, are suspended, to prevent their immediate recurrence.

Though we consider it as unpardonable to trust a severe disease to palliatives, yet we are extremely cautious of exciting, in mild complaints, a counteraction, which is more troublesome, than the original disease. No one could think of treating a slight Catarrh, which, in two days, would yield to demulcents, with Calomel and Opium; nor of removing a moderate constipation, by Calomel, Jalap, Colocynth, Gamboge, Scammony, or Elaterium.

But, when the most efficient articles are indicated, it is a happy circumstance, that there are *certain definite and precise* principles, that, provided the symptoms, for which they are used, do not previously yield, show to what an extent they may be carried, with the most *perfect safety*. To every discriminating mind, these are more evident, than the tests of the most common articles. Thus, the points to which Opium, Conium, Stramonium, Colchicum, Mineral-solution, Prussic-acid, &c. can be carried, *with the*

most perfect safety, are ascertained with much more precision, than they are, with bleeding, Antimony, Nitre, Cream of Tartar, vegetable acids, and the common refrigerants, and of consequence, in the hands of the judicious, are *vastly less liable* to do injury. I have witnessed more mischief from venesection, antimonials, and drastic emetics, and cathartics, and even from Cream of Tartar, neutral mixture, and "*Soda-powders*," than from all the efficient excitants, deobstruents, tonics, and narcotics, of the Materia-medica.

In order to give Mercury a fair trial, as an alterative, it must be pushed so far as to produce incipient ptyalism, and this state must be continued a reasonable time, unless the symptoms, for which it is given, previously yield. Opium, Digitalis, Stramonium, Conium, Prussic-acid, &c. if the symptoms are not previously palliated, are to be increased, till signs of narcosis *begin* to appear. The Mineral-solution, in such doses, as *not* to *disturb* the stomach and bowels, is to be pursued, till its effects are perceivable in the countenance, the puffy appearance of the skin, &c. Moderate strangury, is the test of tincture of Cantharides. Expectorants are to be administered, till they excite a slight nausea, &c. &c. These are called *operative effects*, or tests, and show the action of the remedies on the system; but they are, by no means, *the cause* of their curing diseased action.

In general, those articles which incline to disturb the alimentary canal, should be regulated by a combination with Opium. The inconveniences of one article, are often obviated by another. Thus, strangury from large doses of Cantharides, is removed by Opium, and strangury from Opium, is relieved by Cantharides. None of these articles promise much, or even can be safely used, in efficient quantities, unless they are subject to the *close*, *daily* inspection, of the prescriber. They should *never* be trusted to the *discretion* of nurses; nor even to physicians, in whose skill and discrimination, we have not the highest confidence. Generally speaking, a course, either of active medicine, or even of mild, in energetic doses, should be inspected, every twenty-four hours, and often requires, twice every day, the attendance of the physician himself, or he, and his practice, will be subject to *just* censure.

An unpardonable neglect of these indispensable precautions, among eminent physicians, has increased the boldness of the rash, afforded a pretext for the cavils of the skeptical and inert, and done more injury to the practice of physic, than any cause which has operated, in this age of science and improvement.

It is owing to want of *attention* of this kind, and to *ignorance* of the powers of Opium, to counteract and modify, or *regulate* the effects of most of the ef-

ficient articles, when it is properly combined with them, that we hear so much of the liability of Prussic acid, Digitalis, Stramonium, &c. to *accumulate* in the system; and consequently, of their producing sudden and unmanageable symptoms. Such cases, *do not occur* in the practice of those, who *know* and *attend to* the incipient operative effects, of the most important articles of the Materia-medica.

They, who are ignorant of the *tests* of the important articles, which have just been mentioned, consider their use as hazardous; in other words, they suppose all their medical brethren as little acquainted with the Materia-medica, and consequently, as ignorant, superficial, and unsafe practitioners, as themselves. They, therefore, content themselves, and their consciences, with standing by, as idle spectators, and seeing their patients fail, under palliatives and *placebos*.

I have witnessed, again and again, in the most desperate cases of disease, the attending physician, express a much greater dread of an efficient and safe course of treatment, than of the death of his patient. He was too ignorant of their operative effects, and too indolent, to watch the changes which they produced, to have any idea of the peculiar properties of efficient articles. With him, therefore, the administration of every important medicine, was a matter of hazard, skepticism, and uncertainty.

ESSAY V.

MEDICAL FACTS.

PHYSICIANS are justly censured, for not reporting their unfortunate cases. *General assertions* are entitled to very little credit, unless supported by a *specification* of numbers, and circumstances. To avoid this imputation, I shall state the numbers which I have lost, within the last seven or eight years; that is, since the experience gained from practising in a mortal epidemic, which raged in 1812. From the most accurate recollection, four cases only, of common Typhus, one, of Pneumonia-typhodes, one, of Cynanche-maligna, and two, of Spotted-fever, compose the whole number of my patients, from the age of four or five years, to seventy, that is, exclusive of the diseases of infancy, and old age, that I have lost, from any *acute* febrile disease whatever. (May, 1820.)*

Of these, one was habitually intemperate; four had been sick, from four to seven days, previous to my seeing them; and one had been very injudiciously tampering with medicine, himself. Besides, in

* Two other unfortunate cases of Typhus are to be added. (April, 1823.)

three of the cases of simple Typhus, Calomel, in alterative doses, was not tried at all; and the fourth, for whom, indeed, it was prescribed, had been labouring under the disease, a *week*, previous to any medication. The fatal cases of Spotted-fever were too rapid, for any prospect of success. I have never, in my practice, lost an adult patient from Dysentery.

It is therefore obvious, that in none of these fatal cases, was there an opportunity of giving a fair trial, to my favourite plan, of slowly and moderately purging with Calomel.

I could also specify, by name, large numbers, who had been sick for days, and were found, with a pulse from a hundred and twenty, to a hundred and thirty, in a minute, with other symptoms in proportion, who, in two or three days from my first visiting them, have had their disease terminate in health.

As I pursue a very similar plan, in the febrile diseases of children, it is proper to mention, that I recollect only three or four deaths, out of the many hundreds, perhaps thousands of cases, of every description of acute diseases, of those who have been my patients, during the last eight years.

Pneumonia, Dysentery, and other fevers, attended with local *passive* inflammation, and all cases, where the predisposing and exciting causes, are out of the power of the physician to remove, are not so likely to be broken up, as simple Fever; still, I could men-

tion many striking cases of succeeding with them, in procuring a speedy resolution.

In simple, regular, Nervous-fever, when called within twenty-four hours after the attack, and when no medication has been previously employed, I *never* fail of subduing the disease, in two or three days, at farthest; and taking the cases *altogether*, as they come under my care, whether they have been previously tampered with, ever so injudiciously, or not, I do not certainly *fail* in producing a resolution, oftener, than in one case in eight or ten.

Upon the most mature reflection, and the closest inspection of my books, I am unable to specify a single instance of failure in breaking up this disease (and I challenge thus publicly, any person to do it, staking my reputation upon the accuracy of this statement) when the situation of the patient, and other circumstances, admitted of carrying the plan into *complete* execution.

The consequence is, that I rarely, or never, have a case of protracted regular Fever, among my employers, who are in easy or affluent circumstances, as they are in the habit of calling early for medical advice. Occasionally, it is true, when the plan is incompletely executed, only the *force* of the disease is broken up, and the patient continues in an intermediate state, similar to that called by Darwin, "*Paresis-inirritativa*," requiring, however, but little

medication, for the remaining fourteen, or twenty one, days.

If I have, ever in my life, done any service to the cause of humanity, it has been in so frequently *preventing* the hazard, the pain, and the expense, of protracted disease. It is equally certain, that I have lessened the emoluments of my profession, some thousands of dollars, by the early resolution of Fevers.

Whatever may be the opinion, with respect to the origin and propagation of Typhus, this fact is ascertained beyond dispute, that when it once attacks a member of a family, two or three others, or the whole, are liable to become its victims. By *immediately* restoring the first patient to health, the farther progress of the disease is usually stopped, and an incredible mass of misery is prevented. Even neighbourhoods and towns may be thus saved, from the horrors and ravages of a devastating epidemic.

It is equally proper to state the number of cases of salivation, which have occurred in my practice. I never saw a case of salivation, in a child under five years old. Of the hundreds of times, in which I have administered Calomel, as a *slow* and *moderate* cathartic, in *acute* febrile diseases, I have met with but *one* case, of *complete* salivation. This patient had long been in the habit of tampering with mercurial pills, and had used them in this very indisposition, previous to my being called. Even when

Calomel has been prescribed, in small doses, *to change diseased action*, whether the cases were acute or chronic, not more than *four* or *five* instances of troublesome ptyalism, have supervened.

I am confident, that the instances of complete salivation, have not averaged, *one in three years*, through the whole of my practice, either in acute or chronic diseases; though during that period, I have administered Calomel, in one form or other, thousands of times, with a *very free*, though I trust, *careful* and *accurate* hand.

I will farther state, that I have never witnessed a *mercurial* rheumatism, or any other of the supposed pernicious consequences, follow my patients, after a recovery from the disease, which gave rise to the practice. As Calomel, when *rightly* employed on my plan, is never to be continued, as an alterative in Fever, *longer than one week*, and commonly, only four or five days, it is scarcely in the power of this medicine to effect, during that short space of time, any *permanent* injury to the constitution.

Not trusting to my own experience, I have been in the habit of *examining testimony*, and the *cases* of others, with reference to this subject; for *no kind of dependence is to be placed on loose, popular report.*

One, who has no other source of information, than the slanders, which a meddling class of people propagate, at the instigation of a set of unprincipled physi-

cians, would suppose, that in every town, there are to be found scores of persons, who have lost their teeth, the use of their limbs, and all the strength of their constitutions, by the employment of Mercury. A more barefaced and groundless calumny was never invented.

I have taken much pains to investigate the subject. The result is, that although I have occasionally seen the deleterious consequences arising from *external* applications, as advised by *empirics*, yet I have *never* found any *permanent* ill effect from Mercury, whether applied externally, or administered internally, in an *acute* disease, by a *regular physician*, in a single instance, which I have investigated.

The mercurial diseases, that are sometimes excited in syphilitic, and other *chronical* affections, are not now the subject of consideration. Yet even here, it is capable of demonstration, that where *one* patient has been permanently injured by Calomel, *hecatombs are annually sacrificed*, to bleeding, Antimonials, and the antiphlogistic regimen.

What then is there so formidable, in the careful and accurate use of this article, in Fevers? What culpable imbecility and timidity, what trimming and time-serving spirit in a physician, to hazard life, by a neglect of this important medicine! A neglect of this kind would not only be censurable, but would not be tolerated, in any other concern in the world.

I have frequently observed, that the *opposite* extremes of character—*skepticism* and *credulity*—*timidity* and *rashness*—are usually combined in the *same person.* The most *skeptical*, with respect to the testimony of the ablest physicians, concerning the virtues of an important article, are the most *credulous*, in listening to every gossiping tale of its *supposed* ill effects. The most *timid*, in the use of Calomel, Opium, Alcohol, Cantharides, Mineral-solution, Ergot, Acetate of Lead, &c. have *no fear of the death of their patients*, from an inert course; or, on the other hand, they will prescribe emetics, cathartics, and venesection, with all the obstinacy and rashness of Sangrado.

Since the epidemic of 1812, a genuine *active*, *inflammatory* Fever in the County of Middlesex (and I am well acquainted in every town except one) is as *rare* as a comet. If any medical friend, within twenty miles of my residence, could show me a real, old-fashioned Pleurisy (I do not mean hot cases of Pneumonia of the sub-putrid type, but such as we used occasionally to have, fifteen years ago) which should require the loss of thirty or forty ounces of blood, and a proportional quantity of antimonials, nitre, neutral salts, &c. to overcome the inflammation, I would immediately repair thither, and if my services were needed, most cheerfully attend the patient gratis. I *saw* many such cases in my early practice, and I *still recollect* the treatment. I, by no means, for-

get the *strong-hard* pulse. It is among my *earliest* impressions.

Before closing this Essay, it is proper to notice a common error, which is prevalent among a certain good sort of people, who are little acquainted with medical subjects. They affect to consider, that there is some *truth*, and some *mistake*, on either side, which physicians have taken, in the management of modern Typhus. The fact is, that no compromise is admissible. It is a question of guilty, or not guilty—a dispute respecting *fundamental* principles and facts. Do Spotted-fever, and other *sinking* diseases, ever admit of depletion, or reducing agents, in any stage? This is an all-important point. There is no question, that evacuations are often indispensable, in some typhoid diseases; but are they indicated, because they reduce, or because, while removing a particular symptom, their counteraction overbalances their reducing effects? Every human being is liable to mistake in the application of true principles; yet such principles are as firm and immoveable, as the rock of ages. Was the Spotted-fever of Hartford to be cured by depletion and reduction? Did the Yellow-fever appear in Middletown, in 1820? Does regular Typhus admit of resolution? Are our late Fevers phlogistic, in any stage? There can be no compromise, no splitting the difference, upon such questions. The maxim *in medio veritas*, however

applicable it may be, in many cases of *practice*, has no bearing upon questions of *mere fact*, and upon *fundamental principles*.

A physician, therefore, who is ever boasting of his candour upon these essential points, or who values himself for having no decided opinion upon such vital questions, or upon pursuing an intermediate practice, can be considered in no other light, than as a timid and inert practitioner; or as an artful, time-serving man, who is ever ready to sacrifice the life of a patient, for the sake of preserving a little temporary popularity. When important facts and fundamental principles are concerned, timid friends, who are afraid of offending by taking a decided part, do more to injure the cause of truth, than its open enemies. We know on what ground to meet the attacks of the latter; whereas the former are ever tantalizing us with private approbation, without daring to give us open support. *Non talibus auxiliis.*

In sthenic diathesis the treatment is easy, and the way plain. But, for breaking up, and curing such obstinate maladies, as the typhoid Fevers of the present day, it would be a happy occurrence, to discover a "royal road," to invent a more simple and convenient course, than the one proposed, which, it is agreed, requires such *close discrimination* and *accuracy* of management. Yet, I am not afraid of incurring the charge of enthusiasm, in asserting, that

while man continues exposed to such formidable diseases, I despair of ever seeing one more successful in the result.

Physic requires more industry, pains, and labour, and indeed more learning, a more extensive knowledge of the auxiliary sciences, to carry it to perfection, than any other profession. No practitioner must ever flatter himself, that an easy way can be discovered, for curing severe or malignant diseases.

I am compelled farther to state, that these remarks result from a practice, about as extensive as that of my neighbours, and that too, during a period rather sickly, in which, in addition to a full share of sporadic cases, there have been three or four epidemics in the vicinity, of considerable extent.

This is a plain, unvarnished detail of facts, uninfluenced by hypothesis.

I am aware of the false statements, and false inferences, and the distortions of real facts, which are liable to be made, from skepticism, from timidity, from *indolence*, from ignorance, from obstinacy, and from malice. Nor can I flatter myself, that any efforts of mine will be sufficiently effective, to produce much permanent impression, on prejudiced minds; much less, that they will be of any great avail, in stemming the torrent of that *indolent*, rash, desultory, and indiscriminate practice, which is so fashionable, at the present day, both in Great-Britain and America.

Des hommes qui ont acquis une certaine réputation ne peuvent guère se ranger sous l'étendard de la vérité, qui les gêne, et qui pourrait les compromettre. Aussi, quand on parviendra à les convaincre au fond de l'ame, on n'obtiendrait pas facilement leur aveu.

Unfortunately, there is a certain portion of mankind, who are so pertinaciously attached to their prejudices, that with them, all arguments are useless, and the strongest proof fails of producing conviction. But, truth will finally prevail.—"GALILEO *was persecuted; yet the Earth will continue to revolve on its axis.*"

☞ NOTE.—*The preceding Essays, except the addition of about half a dozen pages, referring chiefly to posterior events, were read before the Convention of the Medical Society of Connecticut, by their appointment, at New-Haven, May 10th,* 1820.

ESSAY VI.

SPOTTED-FEVER. (PHRENITIS-TYPHODES.)

With physicians and others, who are in the habit of declaiming against stimulants, without having ever witnessed an *originally* low, rapid, and sinking case of Spotted-fever, or any other extremely asthenic disease, it is in vain to attempt to dispute. However, if they will have the candour to listen (which, by the way, is very unlikely) they may receive some instruction. Yet, it must be remarked, that no verbal description can convey an accurate idea of a particular disease, to one who has not witnessed analogous cases, any more, than the inspection of anatomical engravings, can make a student master of morbid anatomy, without having first seen dissections.

Sunday, Jan. 28, 1816, one o'clock, P. M. I was called to visit, in consultation, J. N. Y. aged seventeen years. The first sight of the patient struck every beholder with horror. He was as stupid as a block, unconscious of any impression on either of the senses, and so convulsed, that it required three or four

men to hold him on his bed. His eyes were open, and rolled back, so far as to hide the coloured part, and his teeth were as firmly clenched, as in Locked-jaw. His face, arms, legs, and body were literally covered with spots, somewhat resembling, in appearance and colour, gunpowder shot into the skin; though in several places, they run together in patches, from the size of a cent, to that of the palm of the hand. The coldness of death pervaded the whole body, except the parts which had been warmed by external heat, and there was no pulse in either wrist. The convulsions, though they continued most of the time, would occasionally remit, so that there was, now and then, a slight relaxation of the jaws, sufficient to introduce the end of a spoon; and though he remained insensible, after his throat had been irritated, a few seconds, by some liquid, he generally swallowed the greater part of it. During these relaxations, he parted with his fæces profusely, and lay drenched in accumulated filth.

As far as language is capable of conveying an idea of such striking phenomena, this is an accurate description of the case, at my arrival. I then expressed a wish, that every censorious, skeptical, antiphlogistic practitioner, in the State, could have had an opportunity of witnessing the scene. The previous history is as follows.

The patient, an apprentice to a smith, had been

employed the Friday before, in a very warm shop, assisting in tempering sword blades. On Saturday morning, the weather being extremely cold, he went a mile from home, and was much chilled; but on his return, performed his usual labour in the shop, till near night. Towards sunset, he complained of severe pain in the head, sore throat, loss of strength, coldness, and that indescribable anxiety, which the sick term distress, in distinction from acute pain. His sister, who was his nurse, very properly administered an infusion of some aromatic herb, sent him to bed, and applied external heat, till free perspiration was produced. He seemed much relieved in the evening, and about ten o'clock, went to sleep. A man was left with him, to watch his symptoms, and furnish him with drink. He slept tolerably well, and nothing peculiar was remarked, except when he awoke in the night, he was thirsty, and drank, it seems, freely of *cold* drink. About four or five o'clock in the morning, he was found to articulate with difficulty and incoherence, and delirium was soon perceived. The spots were now discovered. A physician was called, who came about seven o'clock. An antimonial emetic was administered, which operated two or three times slightly, and soon produced the catharsis, under which he was *still* labouring, when I first saw him. Little else appears to have been done, except the application of a blister to the region of the stomach, with

frictions, fomentations, external heat to the limbs and body, and occasionally, administering warm aromatic drinks.

Though the case appeared to be hopeless, I advised the use of Laudanum, and Brandy and water, and remained with him about an hour and a half, to watch their effects. During this time, the diarrhœa was checked, and a weak pulsation returned to the wrists. Being now obliged to leave the patient, I can only state, that he is said to have had no peculiar change of symptoms; but he became more and more exhausted, and died at one o'clock in the night, after an illness of about thirty-two hours.

REMARKS.

The attending physician, not being conversant with such rapid, and sinking cases, was completely taken by surprise, and did not even recognize the disease; else, he would never have attempted vomiting, or any other evacuation. If he had employed Opium, Alcohol, Capsicum, Mineral-solution, &c. with decision and energy, together with the warm bath, and a free application of sinapisms, and blisters, he would have had, even at the hour in which he was called, a very good chance of success. Hundreds of instances, to all appearance, as rapid and severe, have recovered under such means. Unfortunately, one of the most deadly, debilitating emetics of the Materia-medica

was administered. This case belongs to only one variety of this Protei-form disease.

I could mention another, that I witnessed, a few days afterwards, which proved fatal, in an hour and a half, after there was sufficient alarm to call a physician, and within six hours, from the first apparent indisposition. No medicine, except twenty-five minims of Laudanum, and warm mint tea, was attempted to be administered. The skin had a marbled, motley appearance, but no petecchiæ. I saw a third, the same season, who died in eighteen hours. He had no spots. These cases were so palpable, and so little medication was employed, that no slanderer dared to suggest, that they were killed by the stimulating practice. Many others, to appearance, equally severe with the first case, could be stated, which were cured by a timely recourse to proper treatment.

Ever since the ravages of Cynanche-maligna in New-Hampshire and Massachusetts, in 1735, the physicians of New-England have known, that in its worst form, that disease had no stage of re-action. Why they should be taken by surprise, when they met with cases of Spotted-fever, Dysentery, Yellow-fever, and even common Typhus, where this stage is wanting, it is extremely difficult to conceive. In such rapid and sinking cases, no time is to be wasted in useless preparation. The most decided counteracting and supporting course is demanded, from the very access.

Spotted-fever appears to have its seat and throne in the brain, to belong nosologically to the passive Phlegmasiæ. It is attended with no spontaneous reaction, but has the forming and supporting stages blended together. This is manifest, by the greatest arterial debility, typhoid delirium and convulsions, paroxysms of *subsidentia*, and in a word, by every symptom, which is known to indicate an extreme deficiency, or exhaustion, of the powers of life.

By an energetic, exciting treatment, at its access, this disease is frequently broken up, within twenty-four hours. When we fail in producing a resolution, and only make such an impression as to moderate the violence of the symptoms, it usually continues seven, or in some instances, fourteen days, requiring the same course of practice, according to the urgency of the symptoms, as is demanded in the supporting stage of Typhus.

One circumstance should be noted. Though the body, when coldness prevails, should be warmed by external heat, fomentations, vapour, or warm-bath, and it is desirable to produce and keep up a moderate diaphoresis, yet there is much hazard from excessive sweating. Indeed, it is not a rare occurrence, to find morbid sweating, through the *whole course* of any low, typhoid Fever. The great difficulty in treating successfully such rapid diseases is, that the physician, too often, is not called till so late an hour,

that he finds all the powers of life exhausted, and the patient already in the agonies of death.

Spotted-fever, like other epidemics, has almost infinite gradations in its rapidity, severity, and mortality. In some seasons, and in individual cases, it is comparatively mild; in others, it is much more rapid and fatal than the Cholera of India, or the Plague of the Levant. No foreign author, it is confidently believed, has ever described this disease. We occasionally see the Typhus-petecchialis of nosologists, but it differs very essentially from the Spotted-fever of New-England.

ESSAY VII.

EXPERIENCE.

"There are more false facts than false theories in Medicine."
Cullen.

"I pray you, what foolish boy, what silly wench, what olde doting wife, or ignorant countrey clowne, is not a physician for the tooth-ach, for the cholicke, and diuers such common diseases? Yea, will not every man you meet withall, teach you a sundry cure for the same, and sweare by that meane, either himselfe or some of his neerest kinsman and friends was cured?"
King James.

WHAT is true experience, and what weight are we to give to medical testimony?

One physician has had a *hundred* cases of Fever, from two, to five or six weeks' continuance. *He* began with free venesection, followed by antimonial emetics, drastic cathartics, and refrigerants, and though most of the cases were very severe, lost but *ten* of the whole number. This success, in such a severe epidemic, *he* considers as conclusive, in favour of antimonials, and the antiphlogistic regimen. Another has had a *hundred incipient* cases, of the same epidemic. Fifty of his patients had the disease *broken up*, in forty, it was essentially mitigated during the

first week, and *ten* only went through an entire course of Fever, of whom, two only died. To a superficial observer, the blundering practitioner had ten times the most business; and to the public it must always *appear* so, as injudicious practice will infallibly increase the number of tedious and protracted cases tenfold; and *his ratio* of success seemed to be even greater than that of the other; the mild cases, and those cured by resolution, being entirely overlooked, or considered as of very little consequence, in the public estimation, though they were *wholly* the result of superior management. Thus, want of skill is often productive of fame and emolument. Both practitioners plead experience in favour of their particular plans; and with the multitude, the most injudicious usually gains the cause. Which, however, is right, common sense must decide.

The two classes of injudicious practitioners, the inert and the rash, are often entertaining us with the many desperate instances of disease, which have recovered under their care. Indeed, they may very truly relate them, as there can be no question, that in general, they meet with, at least, tenfold the greater number of severe and protracted cases. The many hair-breadth escapes, the unexpected recoveries, they and their employers mistake, for notable cures. A good physician terminates a vast majority of the Fevers to which he is called, by a speedy re-

solution. The few severe cases among his patients are real and *original*, not *factitious*, and generally, of the anomalous class. A greater *ratio* of these must be expected to fail, from their original severity and irregularity, than of the large numbers, which were *made* apparently severe, from injudicious practice. Among his steady employers, a judicious practitioner usually finds few severe or protracted cases of Fever, as he is called sufficiently early to produce a resolution. His few real bad cases, however, are likely to be obstinate in the extreme.

I have stated the general rule, with respect to the small proportion of original bad cases, under proper management. It is, however, not unfrequently, totally reversed. An eminent practitioner, when surrounded by physicians, in whom the public places little confidence, may sometimes have nearly all the severe and anomalous cases, thrown upon his hands. In such an unenviable situation, almost all the mortality, during a bad epidemic, will be among his patients. I have known the Yellow-fever break out in a village, thus situated. All the patients, except two, who however died, belonged to one physician, a man of high eminence in his profession. About three fifths of his cases, indeed all, except one, to whom he was *seasonably* called, recovered. Considering the insidiousness of this disease, and its rapidity, this was great success, the proportion of recove-

ries being much larger than in our southern cities. Yet, a number of ignorant, censorious people denied the very existence of the disease, raised a great clamour, on account of the mortality among his patients, and more than insinuated, that his treatment was the cause of their death. Instead of being loaded with calumny and ingratitude, he merited a statue of gold for exposing his own life, by his philanthropic exertions in the cause of humanity, and for the incomparable skill, which he exerted, in so successfully combating such a formidable disease. I could mention several other epidemics, in which nine tenths of the patients belonged to a single physician. Such circumstances give occasion to other physicians, to boast of the few fatal cases they have met with, and of their success and their experience.

I was, myself, for a short time, placed in a somewhat similar situation, in the beginning of a very malignant, epidemic Pneumonia-typhodes, which several years ago, broke out in my immediate sphere of practice, and was very fatal. Soon, however, four adjoining physicians had each a case, within my customary limits. All of these were unsuccessful. The clamour instantly ceased.

Upon no subject is it so difficult to detect the sources of fallacy, as that of medical experience. The truth is, that it is not experience *merely*, but *right* experience, that is a proper guide.

The same principle applies to the various articles of the Materia-medica. An ignorant physician, from awkwardness and mis-management, may *possibly* salivate one patient in ten, when he uses Mercury. Hence, *he* infers, that it is either a *hazardous* or a *capricious* medicine. Another, administers the article, with so much skill and caution, as not to be disappointed in its effects, in one instance out of many hundreds. *He* infers, that Mercury is very *safe* and *manageable.*

These cases are sufficient, to show the allowance, which is often to be made, in receiving testimony, with respect to the results of experience.

But of all kinds of testimony, that which proceeds from *negative* experience, is the least conclusive. The remark, "*I have not found it so in my practice,*" is, in general, but a flimsy excuse for timidity, ignorance, inaccuracy, and *want* of observation. An accoucheur, *contrary* to the rules of good practice, administers Ergot, before the *os uteri* is dilated. *He* not only finds it of no service, but has the additional positive experience, that it *increases* the anguish of the mother, and destroys the child. Or, on the other hand, he administers a full dose of Opium, at the same time, and thus neutralizes its effect. Now, his experience tells him, that even in large quantities, this powerful article is inert. Another practitioner, at the commencement of Fevers, gives Calomel in doses of ten grains, with

Jalap sufficient to make it operate, as a *quick* and drastic cathartic. Hence, when it is administered, as a *slow* and moderate cathartic, *he* has never found it of any service, in producing a resolution of Fevers. A third, in Typhus, administers Opium, only in a single full dose, at bed-time. *He*, therefore, has never found it of any service, in *small* and *repeated* doses, to *excite* and to *support* the powers of life, under the exhaustion of this tedious disease. A fourth, is unable to distinguish Pemberton's *spasmodic Icterus*, from Cramp in the stomach, or Colic; of consequence, *he* is ignorant of the very existence of the disease, and *ridicules* the physician, who considers it, as an *hepatic* affection.

Many practitioners can scarcely advance a single step, in the use of an efficient article, without stumbling on some *supposed* idiosyncrasy, to prevent its farther administration. This patient cannot take the Bark, that, Opium, nor another, Calomel. There is much fallacy on this subject. Though no one more despises the mysterious secrecy of empiricism, or is more willing to explain his practice minutely, to *proper* judges, than myself, yet I consider nothing more mischievous, than conversing about the powers and effects of medicine, *in presence of our patients.* A sick room should be *the last place* for medical consultation. A sick person has, very often, the mind as weak as the body; and in such cases, the

imagination alone, is liable to influence the result, of *any course* of medication. Inform the patient, that most expectorants are merely emetics, in reduced doses, and they will frequently produce vomiting, when taken in the smallest quantities. For a general rule, *narcotics* in particular, lose half their effect, when the patient is conscious of the medicine, he is taking. In a case where Opium was indispensable, and had been successfully taken for days, I came near destroying its effects, and the life of the person, by accidentally calling it by name. The idea of vomiting was associated with it, so that it was extremely difficult, afterwards to retain it on the stomach. It is the business of the physician to prescribe *for* the patient, not to consult *with* him ; and they who *prescribe*, and do not *consult*, are rarely troubled with idiosyncrasies.

It is a very great folly to attempt, in one or two visits, to instruct our patients, even if their minds were sound, in the nature of diseases, or the operation of medicines, the accurate knowledge of which, has cost us years of study, and laborious investigation. In some cases, it requires much management in adjusting the doses, and periods of administration; but, as elsewhere remarked, I never met with a single case, *in the whole course of my practice*, in which Opium appeared to be highly indicated, without its being borne well; provided the patient had no suspicion of the medicine, he was taking. The

temperaments of different persons, and the degrees of susceptibility to particular medicines, are very diverse. This difference is much regulated by the prevalence of irritability or torpor, and has a controlling influence, upon the doses and repetition, of the most important articles of the Materia-medica. But, exclusive of mental associations, there are few, very few, *real* idiosyncrasies. The few persons, who cannot take Alcohol in health, profit as much by it in disease, as any; perhaps more, in low Typhus, than patients in general.

These cases, which are brought to illustrate the subject of *experience* and *testimony*, are all founded in fact, and are not, by any means, too highly coloured. I could state many others, which have occurred within my immediate observation, that are still more striking. Indeed, no absurdity is so great as not to find advocates. Nor is any general method of practice, so rash or improper, that it *may* not be popular. The *vis medicatrix*, and the *vis conservatrix*, act with so much steadiness and uniformity, that Sangrado himself would, perhaps, *seem* to cure ten patients, where he destroyed one. *In mild diseases*, almost any new action, of whatever description, which is artificially excited, *may* prove a counter-agent. If the counteraction is not *worse* than the primary affection, the patient will recover, in every complaint, that was not *originally* mortal. Even when the new action is

positively bad, and increases, by *concurring* with the morbid action, to any degree, *short* of the *mortal* point of exhaustion, so much the better for the reputation of the prescriber; for, he is supposed to have cured a most obstinate and alarming disease; since, the bulk of mankind have no means to distinguish the symptoms, *natural* to the disease, from the new and distressing *factitious* symptoms, which are the *consequence* of an injudicious and rash course of treatment. It is necessarily difficult for the public to detect the sources of error, except when they have an opportunity of witnessing the different results, in *low* typhoid epidemics, where the business is *equally* distributed; for, as before stated, a *moderate* epidemic, usually, adds much to the fame of injudicious practitioners.

In illustration of the manner, in which the public are deceived, with respect to the merit of physicians, we will imagine, that acute diseases are subject to ten gradations, which, if left to nature, without any medication, would vary in violence and severity, in proportion to the numbers, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. No. 1, would be very slight, and No. 10, mortal. It is obvious, that it is the province of our art, to lessen the violence of these different degrees, so as to bring No. 10, within the curable range, and No. 8, and 9, down to the moderate varieties of 1, 2, or 3. If the cases of any particular season, were from 5.

to 10, and the physician should succeed, in reducing them down, from 1, to 5, he would appear to the public to have but a light epidemic, and would gain very little emolument or reputation. On the contrary, the practitioner, who has to treat an epidemic, in which the cases were from 1, to 5, and by mal-practice, aggravates them to 8, or 9, though he *might* escape losing a single patient, would infallibly increase his business, and probably add much to his fame, for his supposed skill in managing such an obstinate disease.

There is, as I have just hinted, such an obstinacy in the constitution of most men, and the *resisting* and *restoring* powers are so strong, that the majority of the acute diseases of our climate, except the sinking and malignant cases, where the stage of re-action is wanting, usually recover, notwithstanding the severest symptoms, or the most ill-judged practice. The most inconsistent plans of treatment, therefore, are supposed to have experience in their favour. The alexipharmic regimen of the benign Small-pox had, formerly, this kind of experience on its side ; as among adults, more than three out of five survived, and with children, the proportion was still greater. It was, however, reserved for the *true experience* of Sydenham, to make it comparatively, a mild disease.

But deduction from a few insulated facts, or the *bare escape* of a patient with life, does not satisfy the

discriminating physician. He employs the *minutest* observations and inquiries, before he suffers himself to generalize in his conclusions. Might not the disease, at first, have been broken up, and the patient have escaped with an Ephemera? Or might not its violence have been materially mitigated, and all its danger avoided? Had the patients, who survived the disease, a speedy and *complete* convalescence? Were they liable to relapse, or were they doomed to drag through the remainder of life, under the aggravated burdens of shattered constitutions, and chronic maladies? Were the fatal cases, in consequence of the *original* severity of the disease, or of wrong conception and mis-management? These questions are all to be solved, before we can pronounce, what is *true* experience.

A visionary or theoretical practitioner, can generally find any thing, which he is looking for. A frequent repetition of drastic emetics and cathartics, will furnish him with as much bile, sordes, and viscid mucus, as he can wish. Nitre, antimonials, vegetable acids, and neutral salts, will usually produce irritation, sufficient to *counterfeit* inflammation. Ill-timed evacuations, produce frequently a *wirey* pulse, which he mistakes for HARD and STRONG. Opium, in improper doses, and at too long intervals of time, is followed by nausea and vomiting. The proper period for tonics being neglected, another week's preparation *may* be neces-

sary, before the stomach can receive them. In a word, it is easy to excite symptoms enough, to justify the most awkward and absurd practice.

Some physicians err, in only one point of practice, and by repairing it, in a subsequent stage, produce a fortunate result at last; though they may have increased the original severity of the disease. This remark applies, especially, to the *preparatory* process. In cases which are so mild, as not to sink immediately from bleeding, drastic emetics, or cathartics, or nauseating doses of antimonials, or vegetable acids, the subsequent treatment, in the latter stages, is sometimes so energetic, as, in a great degree, to counterbalance the dangerous effects, and repair the unnecessary waste of the vital powers, by the previous debilitating course. This heterogeneous treatment has, indeed, like Nebuchadnezzar's image in the vision, a portion of iron, as well as of clay.

The great inquiry is, what is the best method of removing diseases? Two ways are commonly followed to obtain an answer to this question. *Theory* (or, in other words, hypothetical speculations, with respect to the causes, the specific nature or essence of diseases, and the modus operandi of medicines) and the *results* of practice. With respect to the former, nothing can be more fallacious. It is a blind guide. If it ever lead to just conclusions, it is by accident merely; and on the whole, it has served to retard

the progress of medical truth, more than all other causes put together.

There is good reason to conclude, that nearly all the differences and variations of opinion among Physicians, arise from indulgence in theory or hypothesis. Had every writer, upon what ought to be the principles and practice of physic, from the time of Hippocrates to the present day, confined himself to an accurate detail of the symptoms of the commencement, progress, and termination of diseases, together with an account of the medicines employed, their doses, periods of repetition, and their *operative* effects, it is evident, that at the present time, there could be scarcely any diversity of opinion, with respect to the best mode of practice, and of the *remote* effects of medication, under any given combination of circumstances. But, as regards conclusions from the results of practice merely, some men are but little more profited by them, than by theory. Such practitioners are satisfied with the *bare recovery* of their patients, and never give themselves the trouble of investigating, whether their practice actually aggravated the disease, and prolonged its duration; or whether it moderated its violence, and hastened its departure. They never inquire, whether there is any other method, capable of producing the desired effects, more speedily, conveniently, and safely. There is seldom any solicitude about remote effects—whether

by some other plan, less *violence* might not have been offered to the patient's constitution.

All medical information, however, is ultimately derived from experience, assisted by testimony, and analogy. If we had a perfect theory of the proximate cause of every symptom, or knew the precise injury, to which every solid or fluid of the body is subject, and were acquainted with the *modus operandi* of every medicine, still there could be no mechanical, nor chemical, nor mathematical rules, for curing disease. The changes would be so numerous, and the combinations of morbid action so various, as to require the strictest attention, and soundest judgment, in the application of remedies. No great practical benefit could therefore be gained, if we had a perfect theory. For instance—how could a solution of the question, Whether diuretics affect the kidneys, from the sympathy existing between them and the stomach; or whether absorption first takes place, and by means of the circulation, the medicine is carried directly to the secreting organs? How would this information assist us, in prescribing a single diuretic? Similar cases would recur every day, which would set all theory at defiance, at least, so far as any practical benefit is concerned. Physic must, therefore, always remain an *art*, rather than a *science;* and, like every other art, it can be perfected only by the observation, industry, skill, and experience, of the *individuals* of the profes-

sion. It would be as easy to form a painter, by merely studying the writings of Hogarth and Reynolds, as to make a good physician, from theory only.

The entire change of diathesis, which, within the last fifteen years, has taken place, not only in Connecticut, but probably, in all the United States, is one of the most important facts in medical history. It has reversed almost the whole course of experience, by the *absence of phlogistic diseases.* However obvious it is, that such a change in the nature of diseases, requires a correspondent change in the general treatment and regimen, yet, it is not surprising, that inveterate habits and prejudices should be removed, only with the greatest difficulty. If a century was requisite, completely to establish Sydenham's regimen in the sthenic, or distinct Small-pox, it is hardly to be expected, that in the short period of ten or fifteen years, any great change of practice should be generally adopted, especially by the elder Physicians.

The increased mortality, within the last fifteen years, in various parts of our country, in comparison with the preceding twenty-five, is apparent, to the most superficial observer. This must arise, from the greater severity of the diseases, or from a deterioration in the practice of Physic. I am inclined to attribute it to both. Darwin, Townsend, Thornton, Fordyce, Beddoes, Currie, Ferriar, Dancer, and the

other immediate successors of Cullen, who flourished nearly forty years ago, were unquestionably the ablest body of Physicians, that either Great-Britain, or any other country, ever produced. It appears, from the tables of their day, that the average loss of patients in Fever was, in family practice, *one* case in twenty, in hospital, *one* in ten. In our country, the success, in bad epidemics, does not equal their ancient, hospital practice. We have, therefore, but little to boast of, in regard to our experience.

A prominent cause of the *deterioration* of Medicine in the United States, is the combination of the two professions of Physic and Surgery. It is obviously necessary, that every Physician should be acquainted with the outlines of Surgery, and every Surgeon, with the outlines of Physic; but, it is scarcely possible, for one practitioner to excel in both. The value of Surgery is, by no means, overrated in our country, and the favourable station which it holds, is the cause of its daily improvement; but, while Surgery has been justly elevated, the truly discriminating practice of Physic, has not received its due share of attention and patronage. The nature of the studies, the modes of investigation, and the principles of diagnosis, in the two branches, as they respect two very different classes of diseases, are so diverse, and depend upon such widely different processes, that great dexterity in one, is almost

incompatible with the other. *The art of treating local diseases*, would not be a bad definition of Surgery; and, *the art of treating diseases of the whole system*, would be equally applicable to the practice of Physic. In Surgery, the lesion is, for the most part, the direct object of sense; nor, without such evidence, is a Surgeon justifiable, in hazarding any serious operation whatever. The results of dissection, most probably, always afford absolute certainty in Surgery. Many of the most important surgical cases, from being purely local, may be as thoroughly investigated, and as completely understood, at one visit, as from twenty. From the bare inspection of a Cancerous tumour, for instance, without asking a single question, the Surgeon may detail its previous progress, and foretel its future course and event. Even in many of the most important cases, it is not only necessary, but comparatively easy, to make a sudden and accurate decision, as in Fractures, Dislocations, Hernia, &c. An accurate and minute attention, to a multitude of small circumstances, is generally of no great importance; and hence, the Surgeon either entirely overlooks them, or is impatient of attention to points, which are seemingly so trifling.

In the practice of Physic, there can scarcely be said, to be such a thing as tangible or ocular demonstration; and the results of dissection, are to be received with the utmost caution. There is only a part of

the diseases, which fall under the cognizance of a Physician, which are complicated with any organic affection; and even in these, the dissection often throws no light upon the points, most important in affording indications of cure. In inflammation, for instance, which is by far the most common organic affection, we are scarcely, if at all, assisted in our treatment, by any knowledge acquired from dissection. Every skilful and discriminating Physician well knows, that judicious treatment must be regulated by the diathesis, as well as the specific nature of the case; but the results of dissection throw little or no light, upon the distinctions of *active* and *passive*. The lungs may be found crowded with genuine pus, the membranes may be thickened, the vessels may be turgid, &c. without deciding, whether the case was sthenic or asthenic. These effects are known to result from Pneumonia-typhodes and Phthisis-pulmonalis, as well as actively inflammatory Pneumonia. Dissections of the brain are equally fallacious.

In the practice of Physic, the medication must often be entirely regulated, by the most careful deductions, from a comparison of numerous and minute symptoms, which can be discovered only by the strictest scrutiny; and this is seldom made to much purpose, except by persons who have bent their whole minds to such investigations, and have been habitually accustomed to make them. From a single visit, during

the progress, or at the close of a case, it is often impossible, to have any adequate idea, of the true state of the patient, and, in many instances, even of the name of the disease. A Surgeon, who is eminent, as an operator, can seldom have leisure, to be a bed-side practitioner of Physic, and must, of necessity, renounce daily attendance on families. The experience, which he may *formerly* have had, cannot be applicable to variations of diathesis and type. I have witnessed instances, in which men, who have principally devoted their attention to Surgery (and it must be confessed, some also, who have exclusively confined themselves to Physic) have mistaken the worst, and most deadly cases of Pneumonia, for a trifling Catarrh; Typhus, for Hypochondriasis; the delirium of Fever, for chronic Mania; the weak and soft pulse of an exhausted constitution, for the full and strong one of a healthy man. In short, Surgeons are liable to be deficient in the discrimination of diathesis, type, crisis, pulse, stage, temperament, and in one word, in all the subjects, which are so strongly enforced in these Essays, and which are demonstrably essential to the best practice.

From the peculiar nature of Surgery, its practitioners, where they attempt the practice of Physic, are almost inevitably led to adopt, and rely upon, a mere succession of individual, *dashing*, and desultory measures, which have reference only to the existing emer-

gency; instead of that *regular* and *steady plan* of reduction and counteraction, or of counteraction and support, which has reference to critical periods, and remote consequences, as well as to present circumstances, and which is the only *safe* method of managing a severe disease.

Upon no other subject, is the public so much deceived, in estimating the talents of professional men. Most surgical operations fall directly under the view of the mass of mankind; and it is commonly supposed, that he, who can extract a Calculus from the bladder, or couch a Cataract, has attained to perfection in the healing art. The instance, in which the Physician makes the greatest exertion of skill and intellect, as when he cures the most formidable disease by resolution, is entirely out of sight, and is probably never realized, even by the patient himself. Of all the Surgeons of my acquaintance, those only have merit as Physicians, who do not suffer their Surgery to interfere with their daily *family* practice.

The difference between the two professions, of Surgery and Physic—between the mechanical execution of the one, and the mental exertion of the other—is as great, as between the dexterity of the pilot, who manages the ship, and the investigations of the philosophical mathematician, who discovered and demonstrated the principles, upon which navigation depends. Medicine compares with Surgery, in the same manner, as

the talents of Herschel, with those of the ingenious mechanics, who manufactured his telescope. The more unpopular these facts are, the more the necessity exists, that some one should be sufficiently independent, to publish them to the world. The only professional controversies, in which I have ever been engaged, have been with practising *medical* Surgeons. The profession of Surgery has, time immemorial, been second in rank to that of Medicine. "Quoniam autem ex tribus Medicinæ partibus, ut *difficillima*, sic etiam *clarissima* est ea, quæ morbis medeter; ante omnia, de hac dicendum est."—*Celsus, Lib. I. Præf.*

The prevailing course of instruction is such, and the confusion from combining the two professions in the same person, is so great, that our young men usually leave the schools, with the most erroneous impressions, concerning their relative importance, in their future practice. There is scarcely business enough, in a county, for an operative Surgeon. Not one student, therefore, in twenty, can ever become eminent, in this branch of his profession. Yet, they are, in general, well acquainted with Surgery; but, of the most important part, that which will constitute the main employment of their lives, they have, too often, but a very superficial knowledge. Under these circumstances, the reason is very apparent, why we so frequently see diseases of the whole system, treated upon the confined and limited principles, by which a

local disease is managed, in the hands of a Surgeon. We every day find the principles of Surgery *absurdly* incorporated with the practice of Physic. Bleeding *ad deliquium*, is recommended for many kinds of inflammation! This rash expedient can never be indicated, in any supposable case, in the practice of Physic; and it is never justifiable, except to relax the muscles, in a *very few* surgical cases. Every Physician knows, or should know, that we are frequently prevented, by fainting, from taking a sufficient quantity of blood, in sthenic Pleurisy. Who, but a madman, ever dreamed of curing that disease, by Syncope! This symptom, if not fatal, may be of service, when venesection is imprudently resorted to, in asthenic diseases; as it *may* prevent carrying the evacuation so far, as to produce much permanent mischief.

In some of the large cities of our country, one fifth of all the deaths are of Consumption. This cannot be accounted for, on any other principle, than the reducing plan of treatment in this complaint, and the liability to this affection, to which those ever must be subject, who have had their constitutions much impaired by the excessive depletion, which is practiced in acute diseases, since the prevalence of the asthenic diathesis. On the Connecticut, Phthisis, though not rare, is by no means a *very* frequent disease. In its *incipient* stage, it is as often cured as any severe malady, which we have to treat. It is with us, however,

never successfully managed by depletion, and exhausting the powers of life. Calomel and Opium, and Sanguinaria, with a suitable course of mineral tonics, are almost specific in curing that *sub*-acute inflammation of the lungs, which usually precedes a confirmed Consumption. When a fair opportunity has been presented, for executing this plan, with its proper adjuvants, I can safely assert, that I have never failed, in more than *one* instance. Opium, with sugar of Lead, and occasionally, with pills of Capsicum, is attended with similar results, in the early stages of the hæmorrhagic variety. This is the result of my experience, in these varieties of that disease, which has been considered as the *opprobium Medicorum.*

Nor does the state of medical practice on the Eastern continent, appear at the present time, to rest on a much more stable basis, than with us. Though chemical and pharmaceutical science, and Surgery, are much improved, and there is a great accumulation of *insulated* facts, yet in acute diseases, both the theory and practice of Physic seem to have *retrograded.* Judging from the popularity of such authors as Hamilton, Hey, Clutterbuck, Johnson, Welsh, and Armstrong, with most of the periodical works, every thing is there in a state of confusion ; and the modern Physicians are guided by no definite rules of practice, *in acute diseases.* Of consequence, they appear to have no rational grounds for their indications, and in too

many instances, prescribe merely to the name. The most important, and in unskilful hands, the most hazardous medicinal agents, the most deadly weapons, are often mentioned with so much levity, as entirely to mislead the inexperienced. Bleeding *ad deliquium*, wasting the vital fluid by gallons, is taught as a matter of little consequence, and likely to occur in the practice of every day!!! If the disease is called *Fever*, they must *bleed* and *reduce*, no matter how much; if it is called *inflammation*, bleed and reduce still more. They appear to have lost all *accurate* knowledge of *type*, temperament, and *diathesis;* of the distinction of *active* and *passive* inflammation; of the difference between *inflammation* and *irritation;* between a *full* and *soft*, or a *strong* and *hard* pulse; or between the *quantity* and the *quality* of diseased action; or between irritability and torpor. These subjects were *well known*, and acknowledged, by their able predecessors. Although the great majority of the popular writers of the day are so rash, indiscriminate and desultory in their practice, in Great-Britain their plan appears to be hitherto but very partially adopted; and I am happy to find, that there still are several honourable exceptions, in their best living authors. Among those, *who have not bowed the knee to Baal*, who are decidedly opposed to indiscriminate depletion, are Sir Gilbert Blane, Coxe, Reid, and Hall.

The causes of inaccurate experience are so many,

and so permanent, that it can scarcely be expected, that they should be easily removed. The extreme want of discrimination, which prevails among a large proportion of Physicians, would be incredible to any one, who had not particularly witnessed the fact. Some observe no *regularity* in the times of administering medicines, and even ridicule the idea, of giving them at *stated* periods. These can have no standard, by which to distinguish the symptoms of the disease, from those of their own creation. Many have no *test* of the constitutional effect of Mercurials, till they have produced complete salivation. Others do not distinguish the coma of Typhus, from the stupor of Opium. The *stinging*, *acrid sensation* of the skin in Typhus, is almost always confounded with *heat*; though the real temperature is, very frequently, at the same time, below the natural standard. Those patients, who sink down suddenly, in the first stage of low and malignant Fevers, are generally supposed to die of Apoplexy. Many never look farther forward than *twenty-four hours*, in anticipating the effects of any medicine. The critical *weekly periods* of our Fevers, are also entirely overlooked; and consequently, the important changes attending, are not anticipated. The symptoms of *disease*, and the effects of *medicine*, are often confounded together.

It frequently happens, that we administer emetics until bile is ejected from the stomach, and pursue a Ca-

lomel course, till it changes the alvine evacuations to a *porraceous* or green colour. Yet these *effects*, which every student *should* know, are considered by the ignorant, as evidence of the existence of *morbific* matter, and as indicating further vomiting and purging. Such peculiar appearances arise from the secretions, which take place, during the operation of emetics and mercurial cathartics, and are mere *tests* of their action upon the hepatic system. Even the immense quantities of *saburra*, sordes, viscid mucus, &c. in chronic diseases, which often appear after the fourth or fifth emetic, are but a very equivocal proof of their existence, previous to the vomiting process.

The diet and regimen of a healthy man, could it be enforced upon one who is sick, would, in many instances, destroy life; and, in nearly all, it would produce essential injury. On the other hand, every tyro knows, that in many cases of Colic, Tetanus, and other spasmodic diseases, quantities and doses of medicine, which in health would hazard life, are not only safe, but indispensable. *Every important remedy, given at an improper time, and in an improper dose, is a poison.* No severe disease is cured by medicine, without reference to these facts. A person in health would starve from inanition, were he confined to the same scanty diet, to which, in several diseases, it is necessary to restrict our patients, for weeks.

The reasoning, therefore, from the *real* or *supposed*

effects of medicines in *health*, and all theorizing from *these grounds*, by those, who have never put them to the *test of experience in disease*, is worse than time lost, as it constantly sets us at a wider distance from the truth. Whether Opium in Tetanus, and some other painful diseases, may safely be given in scruples, instead of grains—the quantities of Alcohol, Cantharides, Mineral-solution, Saccharum-Saturni, Ergot, Calomel, &c. which are indicated in certain circumstances—all these are *questions of fact*, not of theory, and must be decided by *testimony* and true experience. It is, therefore, the easiest thing imaginable, nay, it is the certain result, that when these active articles are administered under any *false theory* or prejudice, the consequences must be such, as to produce an entirely *false impression*, with respect to their powers, safety, and efficacy; and thus, with the careless, *indolent*, and superficial, destroy their reputation altogether.

We reason badly of diseases, which we have not seen, and of which, consequently, we have had no experience. This is not confined to individuals, but embraces whole bodies. For example; learned societies, in our cities, have occasionally volunteered their advice, for the treatment of particular epidemics, in the country. In these cases, they have always blundered; and as far as they have had any influence, have served rather to distract, than to assist

their country brethren ; and thus, to make " confusion worse confounded."

A common defect in experience arises from the want of a suitable knowledge of the Pulse. No one, who is not in the habit of *counting*, can judge with any *accuracy*, of its *frequency*. I have repeatedly seen a pulse of *a hundred and twenty*, mistaken for one of *eighty*, and of *a hundred and fifty*, for one of a *hundred*. Every day, we see *fulness*, mistaken for *hardness* and *strength*. The *small-wirey* pulse, a sure mark of asthenic irritation, is confounded with the strong-hard pulse of sthenic diathesis. There sometimes exists an innate and incurable want of nicety of tact, as in Doctor William Hunter, who is said to have candidly acknowledged, that he could not distinguish a *hard* pulse. From this deficiency, notwithstanding his great acquirements, he was destitute of the *only specific key* to the phlogistic diathesis. With all his learning, therefore, he must, in acute diseases, have been but an indifferent practitioner ; and his experience and testimony, on these subjects, could be entitled to very little confidence.

A very common source of error in experience, arises from overlooking the remote effects of bad practice. That a patient *bears* bleeding well, *bears* purging well, *bears* vomiting well, is no argument, in itself, in their favour ; the question is, whether he is *ultimately benefited* by these measures. A sound

man may *bear* fasting, one day in every week, and watching, one night in every week, for a year, and yet his exemption from any very great inconvenience, is no proof of their being salutary. Of those, who drink daily half a pint of ardent spirits, though the ultimate effect is usually fatal, how small the number of persons, who suffer much *immediate* inconvenience? How great a majority of the cases of regular Nervous-fever would live till the fourteenth day, or even finally recover, under almost any method of treatment, or no treatment at all? On the other hand, under the worst alexipharmic course, which madness ever prescribed, in sthenic diseases, a great majority of cases finally recovered. Nature, however greatly outraged, would frequently vindicate her rights, and by a powerful critical effort of spontaneous hæmorrhage, vomiting, purging, or sweating, would restore the patient, in defiance of the disease and the medication.

Practice, which is in itself proper in *kind*, should, however, be managed in *degree*, with reference to its remote effects. I once knew of a Physician, who was very popular for his speedy method of curing Pleurisies, by bold venesection. At the same time, there was an able Physician in the vicinity, who was as popular in lingering complaints. The latter observed, that a considerable number of his patients were affected with Hydrothorax, and other diseases

of the chest, and had previously been *speedily* cured of Pleurisy, by the other practitioner!

No one disputes the fact, that many instances of typhoid Pneumonia, and other diseases of the sub-putrid type, sometimes yield to a *daring* use of the lancet, and other extreme evacuations. But this does not prove, that such means are either safe or prudent; especially, when it is well known, that there are other counter-agents, which are attended with *much greater success*, without exposing the patient to hazard from the immediate, or more remote, consequences.

It is a circumstance well worth notice, that in some diseases, the system will resist the effects of a course of treatment, which is positively bad, to a much greater degree, than it could in health. Because some cases of Mania, sub-putrid Fevers, and some torpid diseases, will *bear* bleeding by quarts, and Calomel and Tartar-emetic by drams or ounces, this is no argument, that such dashing practice was indicated, or even, that it will not be extremely hazardous or fatal in the end. Nor is the apparent impunity, with which the patient endures these harsh operations, any sign in itself, that either bleeding or evacuations were required in the case. It is very evident, that some cases, in which blood was wasted by gallons, might have been cured by half a dozen grains of Opium; and others, where there was the

same waste of the vital fluid, would have yielded to half a scruple of Calomel.

Another lamentable fact is, that, except in referring occasionally to a *text book*, a certain proportion of Physicians, never study at all, but stop at the threshold; as soon as they obtain their license, they consider, *they have learned their trade*, and sit down contented with the mere elementary acquirements of a student. The whole library of such persons, is not usually worth twenty dollars. One consequence is, that in consultation, we often have theories and hypotheses adduced, as matters of demonstration, which have been twenty years exploded. Such Physicians, confining themselves to an indolent routine, and treading the same beaten track, may practice thirty years, without acquiring a particle of true experience.

A very common attendant on the want of discrimination, and an insuperable barrier to any improvement in true experience, is a peculiar skeptical turn of mind. Skepticism is as pernicious in medicine, as in religion and morals. From the very nature of the case, no one who is very skeptical of the powers of medicine, can either be a good Physician, or an honest man. Whoever has so much doubt of the efficacy of Medicine, as really to believe the maxim, that "there is very little difference between a good Physician, and none at all," ought immediately to

renounce his profession, and cease to chouse his employers out of their understanding, and their property. If the practice of physic is nothing more than a system of juggling, from the dexterous administration of *placebos*, the sooner the profession is banished from the civilized world, the better.

The many circumstances, which are intimately connected with this Essay, and indispensable to the right understanding of the subject, are sufficiently numerous for a volume. The errors arising from false experience, and false theory, are productive of infinite mischief.

A Physician of fifty years' practice asserts, that *Croup*, and *Hydrocephalus-internus*, are incurable diseases. If he means, that *he* never cured them, I perfectly agree with him. A popular, itinerant professor contends, that continued Fevers, are never subdued in their early stages, but when once formed, must run their course. If this is an acknowledgement, that *he* has not skill enough to break them up, there is no dispute on this point. A third affirms, that the same person never has Typhus a second time, or in two different seasons; that Pneumonia-typhodes, and common Typhus, are so entirely distinct, as never to run into each other, or to have the symptoms of one, suddenly give way to those of the other. I will readily allow, that *his* practice has not been so *extensive*, or *his discrimination* so exact, as to

admit of *his* observing these occurrences. But what do such gentlemen mean, by opposing their negative testimony, and *want* of experience, to the combined *positive* testimony, and experience of others? Do they imagine, that their *weight of character*, is sufficient to stop inquiry, to prevent the investigation of facts, to check the introduction of improvements, or to chain the wheels of science, by deductions from whimsical hypotheses, false experience, and negative testimony?

A mere *counselling* and itinerant Physician, however learned and ingenious he is, in devising expedients to meet *particular* symptoms, from the very nature of his employment, can never be a very regular or energetic practitioner. He cannot be expected to be acquainted with the type or diathesis of the diseases of the season, nor indeed, of particular sections of the country, the degrees of which often vary considerably within a few miles. He does not *wait the event* of his own prescriptions, but commits their execution to *other* hands. He therefore, for fear of mismanagement, cannot consistently *hazard* his own reputation, and the *safety* of the patient, by advising an *efficient* course of either Alcohol, or Opium, or Mercury, or Mineral-solution, or Conium, or Datura, or any other powerful article. The *best* Physician often fails, in attempting to execute the *plan of another;* the envious and malevolent are known to exer-

cise every covert art to defeat it; and nurses are not always to be trusted, even under daily inspection. It is natural, therefore, for the counsellor to become first *timid*, then *skeptical*, and finally *inert*. Yet, he will usually express the opinions, which he has formed from a superficial and casual observation, with a much more *decisive tone*, than the family Physician, who has had an opportunity, from the *beginning*, to watch the progress of the disease, and the effects of the medicine. As Cicero is said to have valued himself, more on his poetry, than his eloquence, so at the present day, we frequently see counselling Physicians, of high standing, and pre-eminent talents, with the greatest self-complacency, *dogmatize* most freely on *acute diseases*—almost the only branch of their profession, with which, from the *very nature* of their employment, they must necessarily have the least *practical* acquaintance.

Speculative opinions, even those which are so indigested, as scarcely to merit the appellation of theories, will, nevertheless, *influence* and *control* the practice. He who supposes the Croup, or Hydrocephalus incurable, will never adopt a practice, *sufficiently energetic*, to induce *him* to change his opinion. Nor will the advocate of the theory, that Typhus is the consequence of as uniform and specific a contagion, as the Small-pox, be ever *likely* to make *any effectual exertions* to suspend its progress. An *inert*

practice is the necessary consequence of such hasty opinions, and *false* experience. Besides, such false notions destroy all *candour* and *confidence*, with respect to the experience of others. When such diseases as the *former*, are cured, and they are, again and again, their existence is denied, for the sake of defending a *lame* opinion; and the *attending* Physician, must be *defamed*, by the charge, that he imposes on his employers, by pretending to cure a disease, that never existed. Rather than give up a whimsical prejudice, the most distinctly marked Typhus, if subdued during the first week, and the severest Pneumonia, when the local symptoms suddenly yield, or are followed by continued Fever, are struck from the catalogue of diseases.

A time-server, who is ready to join with every body, and to assent to any thing, may go smoothly through the world, but can never take much interest in what does not immediately concern himself. He can stand by, and see a patient lost from imbecility and ignorance. The dread of giving offence, in his mind, is of more weight, than the sacrifice of life. With the skeptical, the inert, the visionary, and the opinionated, it is, however, extremely difficult, for an honest man, to practice, or even to join in consultation, without being in danger of compromising his reputation and his conscience. Injudicious Physicians, notwithstanding their other defects, have

usually art enough to bring the prescriptions of their counsellors, into disrepute. If Ergot is advised, they will, perhaps, unite Opium with it, and render it inert; or so manage, as to destroy the *child.* If acetate of Lead, they will omit combining it with Opium, and thus expose the patient to Palsy or Colic. If Opium, they will give it in such doses, and at such intervals of time, as to subject the patient to the secondary effects; or, at the same time, they will neglect the alimentary canal, till obstinate constipation is produced. If Calomel is advised, in small and repeated doses, as a slow and moderate cathartic, and the form of electuary is prescribed, they will give it in pills, and thus, if possible, produce salivation, or try, by other methods, to defeat its operation. It would seem, as if their only aim, in these imperfect trials, was to bring into disrepute, the practice of others. The more skepticism, they can disseminate in the community, by such artifices as these, the more do *they* gain, as they are thus placed, ostensibly, on a par with men of talents and integrity. Such men pay no attention to the regulations of the *medical police*, or dexterously evade them, as they are ever mis-stating and distorting the opinions, which were expressed under the confidence of medical consultation. It has been very forcibly remarked, that " from the circumstance that all valuable medicines are what is popularly called poisons.

it has always been the trick of cunning men, who wish to undermine the professional reputation of a rival, who is supposed to interfere with their business, to represent him as employing new or dangerous medicines, as making hazardous experiments upon the health and lives of his employers, and in short, to insinuate that his method of treatment destroys his patients."

It need not be a matter of surprise, that those, who are acquainted with *this class of practitioners* only, and the deductions which they make from their false experience, should *lose all confidence* in medical testimony.

Where medical skepticism prevails among the body of the people, the honest and faithful Physician meets with innumerable vexations. There, indeed, is no danger of a lack of business, if sickness prevails, as mankind when in distress are ready enough to apply for assistance. In this respect, common sense gets the better of the absurdest theories. But application for medical aid will be guided by no *fixed principle.* No one will have any family Physician, but he will call on the first, who falls in his way. The most *prominent* relief, the most *decided* success, will not secure the *future* practice of a family; nor will the most palpable ignorance, or mal-practice, prevent the skeptical, the inert, or the rash, from finding full employment. I have known all the Physicians of a large

town, employed in succession, in one family, in the same year. The most skilful and the most ignorant practitioners, as regards business and its emoluments, are thus placed on an equal footing. In this respect, the ablest Physicians are often treated with a neglect, which would be considered as unpardonable, in the employment of a common mechanic. What inducement can there be for exertion, when the *most decided success* will not assure a Physician, that in a second case, it is not an even chance, that he will be superseded by an ignoramus, who will be employed in his stead?

I could mention a population of several thousands, where skepticism and indifference are so generally diffused, that scarcely ten families can be found, who are attached to any one Physician. No man of talents can be expected to have sufficient patience to practice long, where he cannot command more confidence and encouragement, than an ordinary empiric. This is not the worst of the matter. In extreme cases, which have been suffered to *run down* from imbecility or mis-management, the most able Physicians *will be* applied to, notwithstanding the previous neglect with which they have been treated. If they accept the invitation, for the sake of peace, they must barter their consciences, and hazard their reputation; as no efficient course can be trusted to the ignorance, stupidity, and obstinacy of the attending practitioner. If they refuse to attend, as the public

cannot estimate the difficulties, a whole town will accuse them of inhumanity. Even when the attending Physician is dismissed, it is a very ungrateful task, to take charge of a case, that has already become nearly hopeless.

I should never have believed, that in an enlightened age, among a civilized people, and with scientific men, the practice of Physic could be involved in such difficulties, as to make it the last profession, in which an honest man would wish to engage, had I not repeatedly witnessed the facts, upon which the preceding remarks are founded. It has been my lot often to witness cases, in which patients were ready to acknowledge, that they had been brought to the verge of the grave, by improper or inefficient practice; that their lives, under providence, had been preserved by the exertions of a consulting Physician, who took the case, with the greatest reluctance; and yet, ever afterwards, they would treat him, who had restored them to health, with a degree of neglect, which, in the eye of the world, amounted to positive disapprobation, by again countenancing the very practitioners, whose inefficient or improper treatment, they would agree, had been the cause of all the former difculty and danger.

Low, typhoid, malignant diseases, such as the Yellow-fever, Jail-fever, Spotted-fever, Malignant-pleurisy, Malignant-dysentery, Passive-phrenitis, Malig-

nant-quinsy, and the worst forms of irregular Nervous and Putrid-fevers, with every kind of passive inflammation, on their first appearance, always confound such ignorant, inert, or skeptical Physicians, and their employers. In many of the most deadly cases, the skin is *cooler* than in health, and the pulse is preternaturally *slow*, or even morbidly natural. Though there is every evidence of the greatest *arterial* debility, the patients may have sufficient *muscular strength* to walk their rooms; and they often obstinately persist in asserting, that they are *not sick*, and thus refuse all medication, till within a few hours of death. I have, in more than one instance, seen a patient possess so much muscular strength, as to reach the arm from the bed, for a pinch of Snuff from my box, and take it with apparent relish, when the event proved that the person was *in articulo mortis*, actually dying. In some of the lowest cases, a relish for Tobacco, Snuff, Aromatics, Alcohol, and even hearty food, remains through the disease.

Besides, the credulous, the ignorant, the skeptical, the inert, and the obstinate, are always making mistakes, and often wilful misrepresentations. They are always deceiving the public, and perhaps themselves, by false statements and false names of diseases, and will *rarely* allow, that *they* lose a patient of any prevailing epidemic. I have known the Yellow-fever mistaken for Jaundice and Epi-

lepsy, and other Typhoid diseases, which terminate suddenly, considered as fits, or Apoplexy, or Palsy, or Locked-jaw. In their beginning and progress, they have frequently been mistaken for Hysteria, Hypochondriasis, Hydrocephalus, Insanity, or even much more harmless complaints. The Physician, not unfrequently, has dismissed his patients, and the patients have often dismissed him, as they were considered to be either convalescent, or out of all danger, and yet, they have died within forty-eight hours.

It is already full time to bring these hasty and desultory remarks to a conclusion. False testimony, false theory, and false experience, the most formidable obstacles to improvement in the healing art, are a boundless field, in which it is in vain to attempt to trace all the ramifications of fraud, error, and delusion.

ESSAY VIII.

INDICATIONS OF CURE DEPEND ON CERTAIN AND FIXED PRINCIPLES.

THERE are three distinct classes of Physicians, which have long existed in the medical world. The first, or inert, have often been called *Stahlians*, and consider, that every disease must run its course. They have no further aim in view, than palliating, or at farthest, removing particular symptoms. This class is skeptical with respect to the powers of medicine, and consequently inert in practice. They reason as confidently about medicines, they have never tried, as of those which they are in the habit of using daily. They affect to dread every efficient article, and will not depart from their routine, to save the life of a patient. Their whole practice is a compound of skepticism, indolence, imbecility, and obstinacy. It is believed that this class is still numerous, even in this present enlightened age.

The second, or the *fashionable* Physicians, is the class of the rash and desultory, who are ready to fall in with any plan which caprice or fashion may dictate; and provided they are doing something ef-

ficient, they appear to care little what it is. Their only object, next to their desire of popularity, is to simplify the practice, so that the pains of study and reflection may be spared. If it is the popular whim to consider every disease as arising from debility, they have nothing to do but to stimulate to any extent; if increased excitement is the order of the day, they deplete without measure, and with the greatest indifference, waste the vital fluid by gallons; if morbific matter is supposed to prevail, every thing must yield to sweating, vomiting, and purging. Whatever mode of practice is fashionable, they employ; whether bleeding, vomiting, purging, salivation, sweating, or stimulating. They do not hesitate to administer Calomel, Gamboge, Tartar-emetic, and Sulphate of Zinc, by drams, and even some of these articles, by ounces. Provided there is a *chance* of getting the patient suddenly off their hands, and they can acquire the reputation of making great and speedy cures, they are utterly regardless of the *remote* consequences. When such rash practice is not immediately followed by death (I could name a dozen cases where such an event has happened) it is very liable to be attended with violent and repeated relapses, and the frequency of the following chronic complaints, shows their *ultimate* effects. Intellectual weakness and imbecility, a leucophlegmatic habit, debility and disordered action, of the digestive organs.

obstructed perspiration and disorders of the skin, cellular, thoracic and abdominal Dropsy, are the consequences of over depletion. At other times, the effect is morbid or vitiated action of the biliary organs, hepatic and other glandular, and visceral obstructions, Hypochondriasis, with wandering pains, resembling Rheumatism. In females, Menorrhagia, Leucorrhœa, Hysteria, &c. At other times still, it produces Consumption, on the one hand, or Obesity on the other. It is rare, that there is great Obesity, without a loss of much blood, or other excessive evacuations, at some previous period. In a word, predisposition to almost every chronic disease, premature old age, and as has been so often repeated in these Essays, all the ills of a shattered constitution, which make the lives of valetudinarians, a burden to themselves, and their friends, are the usual consequences of drastic remedies, in excessive doses, and at improper times. Yet, such *dashing* practitioners, are always likely to be the most popular. Their rashness, suits the *impatience* of people labouring under disease; as when it is seen that something efficient is doing, there is the imposing appearance, that the case is perfectly understood. Even when death is the immediate consequence, the friends find ample consolation in the idea, that since it was so speedy, it was inevitable, and that the case failed, in the hands of so skilful and eminent a practitioner.

It is elsewhere noticed, that such contrarieties of character often exist in the same person, that notwithstanding the obstinacy and rashness, with which many will persist in the application of the most powerful reducing agents, they frequently affect the most ridiculous timidity, in the use of the lightest exciting and supporting articles. Such physicians, for the most part, are a great annoyance to all the careful practitioners, in their vicinity, by scattering false reports, and the most unfounded apprehensions, against the use of any medicines, except such as tend to waste and destroy the powers of life. They are often great hypocrites, and, before the public, censure the very articles, that they are frequently obliged to use. Those who have endeavoured to raise a party against the use of Brandy in sinking cases, have been repeatedly detected in administering colourless Alcohol! In fine, no inconsistency is so great, as not often to be met with, in the conduct of the desultory, precipitate, popular physicians. This class is still too numerous, comprehending most of the clamorous, bustling, time-serving members of the profession.

But, there is a class of *discriminating* Physicians, who thoroughly examine their subject, and *never employ any agent, without some definite and specific end in view.* With them, the question is, "what is truth:" what facts are to be depended on, in their

own experience and observation; and what weight they are to give to the testimony of others. This class, though it must necessarily comprehend every able physician, is probably much the smallest in number of the three; and it must ever remain in the minority, while so large a proportion of mankind readily yield to ignorance, indolence, and imbecility on the one hand, or are so much dazzled by rash, desultory, and empirical practice on the other.

The discriminating class contend that there is something, which is definite—that we have some sure principles, by which to guide us in the practice of Physic. There is something certain, notwithstanding all the confusion which has been created by the desultory and the skeptical, or the theoretical and the visionary of our profession. In ordinary cases, whoever will carefully study the subjects of pulse, stage, type, crisis, temperament, and diathesis, and will notice their peculiar characteristics, need never be at a loss in his indications; and if he is thoroughly acquainted with our extensive Materia-medica, he can always meet them with appropriate remedies. A kind providence has not joined to the usual dangers of sickness, the additional perils of uncertainty and hazard, in the indications and means of cure. The laws of the animal economy, whether in disease or health, are as precise as those of any other department of nature. A good physician, has as certain

rules, by which to determine, when Wine is a necessary cordial in the Small-pox, as he has, in other circumstances of the same disease, to pronounce it a poison. To a discriminating mind, whether the Measles require bleeding, or are to be palliated with brandy, is equally plain. There are certain *definite symptoms*, by attending to which, in their proper connexion, there remains no more doubt, when Pneumonia requires Alcohol, Opium, and Cinchona, than when it is to be combated, by all the depleting and refrigerant agents, of the antiphlogistic regimen. The cases of Dysentery, which are to be treated with Opium and tonics, are as plain as those, which require Tamarinds, Neutral Salts, and Antimony. The heat of irritation, which is aggravated, and even excited, by the antiphlogistic regimen, and yields *so certainly* to tonics, narcotics, and excitants, can be distinguished by a student, who has been properly instructed, from that of phlogistic inflammation, which is subdued by a directly opposite course. The idea, therefore, is utterly false, that an able physician, must necessarily sacrifice half a dozen of his first cases, before he can learn how to practice, in a new epidemic. Sometimes, the system must be raised, the excitability must be increased, before we can avail ourselves of the deobstruent effects of such articles, as Calomel, or Digitalis; at others, it must be lowered, before they can be made to act properly;

but still, these opposite states *can* be distinguished by a judicious physician. The same remark applies to Cinchona, and the mineral tonics. However clearly these articles may be indicated in the abstract, the system must be first put into a *certain state*, before it can be benefited by them. Evacuation, in some instances, is necessary, in others, the system must be excited, before it is within their reach. The operation of such powerful articles, is not a matter of chance and hazard. In another place, I have shown, that the most important medicinal agents, are attended with definite tests, which obviously mark the extent, to which they may be carried, with the most perfect safety. All the sneers and sarcasms of the rash, skeptical, indolent, or ignorant physicians in the world, can never invalidate these facts, nor can all the accumulated negative testimony of the superficial and careless, prevent them from being realities. Nor is the fact, that a great majority of the sick, *ultimately* recover, any argument in favour of absurd practice. It is only a comparative estimate of the ease, safety, and success, both in the *resolution* and cure, the rapidity of convalescence, and the exemption from relapses, and future chronic diseases, that can enable us to determine the skill of different physicians. No judgment at all, even by the ablest physicians can generally be formed, of the correctness of another's practice, from the mere name of a disease.

If we are unacquainted with the subjects of pulse, type, stage, crisis, temperament, and diathesis, all medication is empirical, and degenerates into mere routine. The name Typhus alone, does not, by any means, show that Opium, Alcohol, and Cinchona, are indicated, in every stage. Nor does the word Pleurisy, *of itself*, make venesection and reduction necessary. Dropsy does not always require diuretics, nor do Epilepsy and Chorea, by any means, sanction the indiscriminate use of antispasmodics. There may be Puerperal Fevers, which require free depletion, and there are others, in which it is almost certain death.

For the purpose of assisting to ascertain, what is certain in our profession, in these Essays, I shall endeavour to trace the outlines of the several phenomena, which belong to pulse, stage, crisis, type, and diathesis. That we have not yet been able to trace all the laws of disease, is no more an argument against the existence of such laws, than that the laws of Chemistry did not exist fifty years ago, because they had then been but imperfectly investigated. Whoever will dismiss all theory, and confine his deductions to plain and obvious facts, cannot fail of being satisfied, that the various morbid actions of the system, are governed by as precise rules, as those, by which any other department of nature is regulated.

To such perfection are the principles of our art carried at the present day, that a proper investigation

of the subjects of the following Essays, will remove nearly all the uncertainty, which has unjustly been supposed to belong to medicine. Too many physicians deceive themselves, and their employers, by prescribing to names, much oftener than they imagine. But, the names of symptoms are, if possible, more fallacious than the names of diseases. Inflammation, Hæmorrhage, Diarrhœa, Vomiting, &c. are counteracted by very different remedies in asthenic, from what they are in sthenic diseases; and the treatment of these symptoms varies nearly as much, in different stages of Fevers of the *same* diathesis. Typhoid heat, more especially in the last stage, is lessened by the very means, that aggravate that of Synocha; and the common refrigerants and diaphoretics, that are indicated in phlogistic inflammation, usually increase the irritation and *calor mordax* of Typhus. To determine, whether articles are with strict propriety termed refrigerant, diaphoretic, expectorant, diuretic, anodyne, febrifuge, &c. is impossible, unless we first ascertain the various circumstances of the case, in which their administration is proposed. In addition, the doses and the intervals between their employment, and the regularity and perseverance in their use, must all be taken into the account, before we can with any certainty predict the result.

Cinchona under certain circumstances, is an efficient expectorant; and Tartar-emetic and Nitre, in

Typhus, usually increase febrile heat and irritation. The effervescing mixture, though by way of eminence, termed anti-emetic, in many typhoid diseases, is one of the most nauseating draughts, that can be taken. The same remark applies, still more forcibly to vegetable acids, and the neutral alkaline salts. Even Ipecacuanha, where the skin is cool and moist, is a *very improper* debilitating agent. The previous treatment must also be taken into the account, as a great many of the efficient articles cannot be used at all, or, at least, with benefit, unless the system has been previously prepared.

I cannot better conclude these remarks, than in the words of the late truly estimable Dr. Edward Miller. "With all its imperfections and uncertainty, Medicine can still justly claim a body of principles and doctrines, eminently entitled to confidence." "If we could suppose it to be otherwise, and believe it incapable of being reduced to rules and principles, it would be unlike all other arts; those who practise it, would degenerate into a herd of visionaries, empirics, and impostors, and instead of being protected and fostered, they ought not even to be tolerated by a wise government."

ESSAY IX.

PULSE.

The Pulse, in strict propriety, is merely the diastole, or dilatation, of an artery. But in speaking of its state, we include all the circumstances relative to the motion and condition of the heart and arteries, and their contents, that can be perceived by the touch. These circumstances are numerous, and of so much importance, in the diagnosis and treatment of diseases, that at the present day, no practitioner of medicine can be comparatively respectable, or even useful, without a knowledge of them; and yet, strange as it may appear, there does not seem to be any good treatise upon the subject. Those, who have written, have either multiplied minute distinctions, on the one hand, to an extent never found in nature, or on the other, have been so loose and indefinite, as to be of no practical benefit to the world.

The truth is, most descriptions and denominations of pulse are entirely relative, so that even judicious men sometimes intend the same state by different names. This difficulty can only be remedied, by at-

taching precise, accurate, and invariable significations to the terms employed, and by nice observation and experience.

The state of the pulse may be considered, as indicating the *strength* and *quality* of the action of the whole sanguiferous system; and of course indirectly, of the nervous, lymphatic, chylopoietic, bronchial, and all the other subordinate systems; some derangement of which is always connected, either as a cause, or a consequence, with any considerable disorder of the heart and blood-vessels.

Vital power, in disease, most probably, is always unequal. In sthenic cases, there is always an increase in the sanguiferous system, and commonly in some other, though probably a diminution in some. It is most unequal in asthenic cases; but in the lowest, it is almost equally deficient, in all the subordinate parts of the whole system.

As infants are so irritable, and so easily affected by slight causes, the pulse in them is of much less consequence, in affording indications for medical practice. Indeed, not much reliance can be placed upon it, as a guide to their treatment. The importance of attention to the state of the pulse lessens, as the age decreases under ten years. In old age, likewise, less judgment can be formed from it, than in youth, or middle age.

A bad pulse, without any other symptom of dan-

ger, is usually of no great *immediate* consequence. A good one, however, when attended with bad symptoms, in other respects, ought not to keep us from alarm. In chronic diseases, the pulse is of much less consequence, than in acute.

The principal circumstances, which, independent of disease and medication, are liable to occasion a variation in the state of the pulse, are age, sex, temperament, habit, climate, season, temperature, position, muscular exertion, and the state of the mind. The approach of the physician often affects the pulse. It is always best to sit a while, before the state of the artery is examined; and it should always be felt twice, before leaving the house. The patient should not speak, while the pulse is under examination, as talking is very liable to produce variation. In most cases, the radial artery, is the best for examination; and while feeling it, the arm ought to rest easily, in such a position as will relax its muscles, and leave all the vessels free from pressure. In severe and dangerous diseases, the artery in both wrists ought to be felt, as there is often a considerable difference. In cases of irregular conformation, the temporal artery, on account of the subjacent bone, next deserves the preference. When the pulse is examined in any part, in which we are not accustomed to feel it, there is great liability to mistake, upon every point except frequency, the accuracy of which, *numbering* will al-

ways insure. The size and position of the artery, and its distance from the heart, will be likely to occasion differences in its pulsations, when compared with the wrist, which few men are able accurately to appreciate.

Two fingers are better to feel the pulse, than either less or more. When three are employed, there is apt to be a confusion of sensation, occasioned by the variation of sensibility in the different fingers, and the variation in the size and depth of the artery, with which they respectively come in contact, as well as the variation in the external form of the subjacent bone. The integuments of the thumb are always too thick, and its sensibility too obscure, to enable us to perceive nice variations. An irritable and nervous physician must beware, how he confounds the pulsation in his own fingers, with the beat of the artery of his patient.

Dr. Rush has very correctly remarked, that "the pulse communicates much more knowledge of the state (diathesis) of the system, than any other sign of disease;" and he adds, that "the knowledge acquired by attending to the states of the pulse, is so definite and useful, and the circumstances, which seduce from attention to them, are so erroneous in their indications, that he has sometimes wished the Chinese custom, of prescribing, from feeling the pulse only, without seeing or conversing with the patient, were imposed upon all Physicians."

Those distinctions of pulse, which are prominent and useful, consist, perhaps entirely, in FREQUENCY, QUICKNESS, STRENGTH, FULNESS, HARDNESS, and REGULARITY.

That pulse is said to be *frequent*, in which there is a great number of contractions and dilatations of the artery in a given time; and *infrequent*, when there are but few. The frequent is often called a *high* pulse, and the action of the heart and arteries is said to be *preternaturally increased*. The average frequency of a healthy pulse is said to be *seventy-three* in Great-Britain. In our climate, it is, in all probability at least, seventy-five or seventy-eight. Frequency, though of less importance than strength and fulness, deserves more study in proportion, on account of its prominency, and the accuracy and certainty, with which it may be ascertained. Judicious men may differ with respect to every other particular; but by the use of the stop-watch, there can be neither mistake nor dispute, as to frequency. From a little habit, by the assistance of a good watch with a large, fair dial, a pulse of a hundred and sixty beats in a minute may easily be counted, provided the pulsations of *fifteen seconds* only are reckoned at a time. The degree of frequency, well ascertained, will always very greatly assist the judgment, in deciding upon the other more important qualities; as great frequency never accompanies much strength or fulness. Young men should *always* count:

and the practice continued to maturer years, "*can do no harm, if it does no good.*" I have known men, who were in the habit of boasting of more than thirty years' experience, and who especially valued themselves upon accuracy in discriminating the pulse, mistake a hundred and thirty beats, for eighty; and I well recollect an instance of a very ingenious young man, who was treating a warm Typhus, as a phlogistic Fever, in consequence of an impression, that the pulse did not exceed a hundred beats in a minute, who, by means of the watch of a counsellor, ascertained that it was, at least, a hundred and forty. At this unexpected discovery, all his views of the nature of the case were immediately changed; and he at once recognized it, as a severe case of Putrid-fever, and accordingly changed his practice. There can be but little doubt, that the life of the patient was saved by this means. Frequency, therefore, though in strictness, not the first point in importance, justly deserves to take precedence in our consideration.

The pulse is *quick*, when each contraction and dilatation occupies but a short time, whether these are many or few in a minute; and it is *slow*, when the individual contractions and dilatations occupy a comparatively long time, whether they are numerous or few in a minute. Frequency and quickness are very liable to be confounded, though they are perfectly distinct qualities. Frequency always re-

lates to the *number* of pulsations in a given time; but quickness refers to the *suddenness* of the stroke. A quick pulse, when its beats are distinct, may even be mistaken for a slow one. The *infrequent* and the *slow* pulse, are usually combined, or, at least, are seldom to be distinguished. The quick pulse, in contradistinction from the frequent, is often said to be *jerking*.

The pulse is *strong*, when every dilatation of the artery gives great resistance to pressure; and *weak*, when it gives but little resistance. In a purely strong pulse, the beats are commonly very distinct, and not necessarily perceptible in the systole. The strong pulse may usually be felt on both sides of the finger, and it can never be very frequent. In all probability, it *rarely* exceeds a hundred and ten, and *never* a hundred and fifteen in a minute; nor, as a general rule, can it be much slower than the usual healthy standard.

The pulse is considered as *full*, when a large quantity of blood passes along at every dilatation of the artery; and it is *small*, when the quantity, that passes at each dilatation, is inconsiderable. The full pulse is very liable to be confounded with the strong; but the distinguishing characteristic of the former is *size*, and of the latter *resistance*. The same limitations respecting frequency, usually apply as well to the full pulse, as to the strong.

The pulse is *hard*, when the artery may be felt like a wire or tense cord, both in its *contraction* and *dilatation*; and it is *soft*, when it is felt only in its dilatation, and easily becomes imperceptible on pressure. The hard pulse is often mentioned under the denomination *tense* or *corded*. The hard pulse may accompany strength and fullness, or weakness, smallness, and quickness. When hardness and smallness only, are combined, it is designated by the various appellations of *wirey*, *contracted*, *cat-gut*, or *thread-like*; but when hardness, quickness, and smallness exist together, it is termed a *sharp* pulse. Many physicians intend both hardness and strength, when they speak of a hard pulse; but these two qualities are, in fact, perfectly distinct. It was unquestionably this combination, that was intended, when it was said, that Dr. William Hunter could never distinguish a hard pulse. That firmness and rigidity of the coat of the artery, which is not unfrequently found in farmers, seamen, and others, who labour much in the open air, and which exists, likewise, in many elderly people, even where there is no suspicion of ossification, is very liable to be mistaken for a morbidly hard and strong pulse—a mistake, which, in some instances, might be attended with fatal consequences.

A *regular* pulse, is equal and uniform in frequency, quickness, strength, fullness, and hardness. This is the common acceptation of the term; but notwith-

standing, under the denomination of *irregularity*, may be included all those varieties of pulse, which do not fall unequivocally under some one of the preceding heads. The principal varieties of the irregular pulse, are the following; viz. the *intermittent*, *unequal*, *gaseous*, *undulating*, *depressed*, *morbidly natural*, *obstructed*, and the *shattered*.

A pulse is *intermittent*, when one, or more beats, is lost in a given time.

In an *unequal* pulse, there is a variation, either in frequency, quickness, strength, fulness, or hardness, during the same space, at different periods of time. When inequality is united with weakness and frequency, it is called a *tremulous* or *fluttering* pulse.

A pulse is termed *gaseous*, when on common pressure, the artery seems full, but is slightly, or scarcely, or not at all, to be perceived, on an increase or diminution of pressure. The terms *tumid*, and *inflated* are sometimes applied to this pulse. The gaseous is, in fact, a variety of the weak pulse, though by careless observers, it is occasionally mistaken for a strong one. It is much more liable to be considered as full. A pulse, that is both gaseous and quick, is sometimes called a *bounding* pulse; but this term is likewise applied to genuine fullness and quickness, as it is, occasionally, to an obstructed pulse.

That pulse is said to be *undulating* or *fluctuating*, which rises and falls like a wave of the sea; and

which, though the artery may be felt both in its systole and diastole, is usually soft and weak. When the pulse is undulating and small, it has been called a *creeping* pulse. It is probably some modification of the undulating pulse, which has been called *vermicular.*

A pulse is said to be *depressed, oppressed,* or *suffocated,* when it is apparently weak and small, and as is said, sometimes quick, small, and hard, *(doubtful)* but is capable of being rendered stronger, and fuller, by suitable depletion and evacuations. It is to be distinguished from what it appears to be, by the accompanying symptoms, together with a consideration of the prevailing diathesis. In all probability, it is never to be found, when the general diathesis is asthenic. As, however, febrile diseases of a typhoid character occasionally occur, when the diathesis in general is sthenic, it is possible, that in some instances the true nature of the pulse may be doubtful. Such cases of Typhus generally take place in debilitated subjects, and in situations where Intermittents or Remittents might be expected, and are almost always of such a character, as to receive no injury from the abstraction of five or six ounces of blood, during the flow of which, if the pulse is in reality depressed, its fulness and strength will begin to be augmented; but if, on the contrary, it is of an opposite character, it will either not be changed at all, or it will be render-

ed, for the time being, unequal and fluttering. In every case of supposed depressed pulse, the Physician should pay particular attention to the state of the artery, during the flow of the blood, and regulate the degree of depletion accordingly.

The pulse is said to be *morbidly natural*, when there is so little deviation from the healthy standard, that its difference might not be noticed, independent of the accompanying symptoms. It is important, that this pulse should be discriminated, as it is usually an attendant of some of the most insidious, the most dangerous, and often the most fatal diseases, to which man is subject.

That pulse may be said to be *obstructed*, in which the artery seems full, and its contractions convulsive and frequent, but without emptying itself, or propelling much blood along in a given time. This sort of pulse is probably occasioned by some obstruction to the motion of the great mass of the circulating fluid, as in diseases of the whole lungs, probably in some diseases of the heart, and possibly in some of the liver.

In a *shattered* pulse, the artery feels like a bundle of cords of unequal tension, and seems on pressure to yield unequally, like a split quill. This is believed to be the pulse, which has been denominated *serrated* and *double*. It is of very rare occurrence, but is so strikingly characterized, as to deserve mention. I be-

lieve it only happens in certain cases of visceral derangement, connected with, or caused by, an habitual and excessive use of Opium, or some other narcotic.

The term *low* is often applied to the pulse, but it is of too little precision, to admit of definition. Sometimes it is employed in the sense of infrequent and slow, sometimes it means merely weak and small, and sometimes perhaps, even small and hard, but it is never, to my knowledge, applied to a frequent pulse. Such an indefinite use, and even such a choice of terms, ought to be proscribed, by every intelligent Physician.

The various combinations of the foregoing descriptions of pulse, seem to constitute all the varieties, that are either prominent or remarkable, or that are worthy of notice, in ordinary practice. It is obvious, that opposite states of pulse cannot exist together; and this seems to be the only necessary exception to the extent, and diversity of such combinations.

Great frequency of the pulse, though so often considered as constituting increased action, or increased excitement, and though commonly intended by the term *high*, always indicates deficiency and exhaustion of vital power, to a greater or less extent. It is often found in combination with weakness, and often with quickness, softness, and smallness. It occasionally exists in conjunction with a small, wirey hard-

ness, or with that deceptive appearance of fulness, which is denominated gaseous; and indeed, with most of those states termed irregularities, the depressed, the slow, and the morbidly natural excepted. As a general rule, in order to deduce correct indications from the frequency of the pulse, the average rate in a healthy state of the patient must be estimated as near as possible; and if, for any length of time, the frequency exceeds, or falls short of the utmost healthy limit, between *ten* and *twenty* beats, it may be considered as indicating disease. It is to be observed, that a healthy pulse is commonly most frequent in the morning; but in Fever, as there is usually an exacerbation the latter part of the day, the pulse is most frequent in the afternoon.

A frequent, quick, soft, and small pulse combined, always denotes the asthenic diathesis, being absolutely incompatible with any degree of the real phlogistic state. As the simple Fevers, unlike the Phlegmasiæ, Exanthemata, &c. are not liable to vary in diathesis, some degree or combination of the varieties of pulse under consideration, always attends Nervous-fever, Jail-fever, Putrid-fever, and probably, Yellow-fever, and genuine Intermittent. It also characterizes and affords unequivocal diagnostic marks of the asthenic states of the Phlegmasiæ, Exanthemata, and Profluvia. It occurs likewise in any disease of debility, whether chronic or acute. The same degree of fre-

quency, quickness, softness, weakness, &c. does not in every disease, indicate the same degree of deficiency of vital power. For instance, in acute asthenic Rheumatism, there is usually more frequency and quickness, than is common in other cases, attended with no greater exhaustion.

It need not be repeated in this place, that this pulse, and this diathesis, always contra-indicates depletion, and free evacuations; and after such preparation, as the respective cases may require, it indicates support, such as is afforded by the simple excitants, and several of the narcotics, tonics, &c. These principles, though not understood, or practised, by that servile herd of imitators, which constitute the great body of indiscriminate practitioners, are nevertheless expressly recognized, by the ablest men, and even several of the ultra-phlebotomising and antiphlogistic class. Thus, Clutterbuck observes, "*where the pulse is extremely soft, and compressible with the slightest force, I hold blood-letting to be altogether inadmissible.*" Indeed, he considers "*the full and bounding pulse*" to be somewhat equivocal, as a reason for bleeding. J. M. Cox, the author of Practical Observations on Insanity, who probably ought not to be ranked with this class of practitioners, observes, that the action of the heart and arteries may be *preternaturally increased in consequence of debility*, which state he would remedy by Cinchona, and a generous diet; and he

speaks of *symptoms of excitement, that result only from exhaustion, and are increased by persisting in a system of evacuation.*

The frequent, quick, small, and hard, or wirey pulse, though too frequently considered as indicating a phlogistic state, denotes nothing more, than the addition of *irritation* to exhaustion. This pulse is often found in sub-acute Pneumonia, Phthisis, sub-acute Rheumatism, idiopathic Hectic, and Putrid and Yellow-fevers, when they have been injudiciously managed. I have often seen it produced by an injudicious use of Calomel, and saline cathartics in Dysentery. In such cases, the entire abstraction of the irritating medicine, and the substitution of Opium, and other articles of similar powers, generally remove this symptom entirely.

Excessive and dangerous doses of the irritating essential oils, such as those of Gaultheria-procumbens Betula-lenta, &c. usually occasion this kind of pulse. In these cases, as the article usually produces free vomiting and purging, and by these means, it is commonly evacuated, one would think that common sense, as well as observation and experience, would point out the employment of demulcents, Opium &c. and yet it is to be feared, that this wirey hardness of the pulse, though accompanied with extreme frequency, quickness, and smallness, has too often conjured up in the mind of the Physician, that Hydra inflamma

tion, and not only prevented the employment of the appropriate means of relief, but has even been the means of precipitating the patient into the grave, in consequence of the adoption of additional evacuations, and other reducing and antiphlogistic measures. It is true, that depletion will occasionally lessen this kind of hardness, because it still further exhausts vital power, so as to leave no excitability for the irritating cause to act upon.

The false Brunonian principles of indirect debility would lead to an equal error in practice. The truth is, that many of those articles called stimulants, do often *increase* excitability and vital power, or *susceptibility* to impression from other articles, instead of exhausting it; and in such cases, the proper remedies would both accomplish this, and allay irritation at the same time.

The infrequent and slow, or morbidly natural pulse, in some form of combination, is often found in Darwin's Paresis-inirritativa, Good's Synochus-soporosus, Sydenham's Peripneumonia-notha, the Spotted-fever of Hartford, and some cases of Cynanche-maligna. It occurs not unfrequently in Apoplexy, more especially of the serous sort (or that which occurs in leucophlegmatic habits, and is attended with a pale countenance) in Hydrocephalus, concussions of the brain, and other affections of the head, whether idiopathic or symptomatic, whether from

external violence, or internal causes. It is likewise found in Icterus, and many other diseases connected with a chronically disordered state of the liver, and probably of the spleen, in some cases of Colic, Hypochondriasis, and in diseases where the stomach and bowels are torpid, and much coated with mucus. It is more rarely found in Lithiasis, in Hysteria, and in the other purely spasmodic and convulsive diseases. Preternaturally infrequent, and slow pulses are usually irregular. In many cases of intermission, it is supposed that the beat is occasionally not altogether wanting, but only so weak, as to escape observation. The purely intermittent pulse is, in the abstract, and unconnected with other symptoms, of less consequence, in diagnosis, than most other irregularities. It belongs to old age. Some persons always have an intermittent pulse in disease, however slight, though not in health; others, always have it in health, but not in disease. A knowledge of these peculiarities is useful, as a change of the pulse, in this respect, during disease, to the natural state, frequently precedes a critical change, and if it continues, indicates convalescence.

None of the various irregularities of the pulse, unless, perhaps, the intermittent, are liable to occur in genuine sthenic or phlogistic diseases; but they are always found in those cases, in which there is a greater or less degree of diminution of vital power.

Other symptoms must always be accurately considered, and the indications be made out accordingly.

To the general principles thus far laid down, respecting indications from the pulse, there is but one exception. This is to be found, in the depressed pulse, which commonly appears small and weak, and sometimes as is said, (*doubtful*) quick, small, and hard. The rules for discriminating this pulse have been already given. The cases in which it is found, and the indications to be deduced from it, are the same, as from the strong and hard pulse. The combination of quickness, smallness, and hardness, is supposed to occur most frequently in active gastric and enteric inflammations. Without here stopping to question the correctness of this opinion, to the truth of which there would *seem* to be adequate testimony (though upon no subject have there more frequently been fatal mistakes) it is to be feared, that the almost universal prevalence of the idea, that these inflammations are *necessarily* attended with this pulse, has prevented all investigation of diathesis in these diseases, and consequently led to indiscriminate practice. Suffice it in this place to say, that *genuine* asthenic inflammations of the stomach and intestines do *actually* exist, which do *not* require antiphlogistic treatment, and which recover with *much* greater certainty under a different management.

I come now to the strong, full, and hard pulse,

the only *certain*, unequivocal, and invariable sign of the phlogistic diathesis. This pulse can never be mistaken, whatever may be our standard, our theories, or our prejudices. To a person unacquainted with this pulse, that which is really weak, soft, and small, in a moderate degree, may, in comparison with those which are so, to a greater extent, appear to possess actual strength, fulness, and hardness; but this, as it constitutes one extremity of the scale, must, of necessity, be the only standard of comparison upon these qualities.

The idea of *increased action*, or *augmented excitement*, is attached to the strong, full, and hard pulse, as well as to the frequent. It is this state alone, to which these phrases can in strict propriety apply; and yet, as such a pulse is so rare at the present day, and as the superficial, the ignorant, and the careless are so liable to mistake, without a standard perpetually under their observation, it is believed, that these ideas are referred to *frequency*, in by far the greatest proportion of the cases. It is much to be regretted, that not only these, but that every other merely theoretical expression, cannot be for ever banished from medical use. Should it be said that a particular case is attended with a strong, full and hard, or a frequent, quick, and weak pulse, who could be in doubt of the import of such language? But when *increased action*, *high excitement*, &c. are mentioned,

the meaning of the speaker or writer must remain problematical, unless something happen to be said in connexion, which is capable of explaining the meaning.

The strong, full, and hard pulse, belongs to Synocha, and all the genuine sthenic Phlegmasiæ, Exanthemata, and Profluvia; and it is almost superfluous to say, that it indicates free, and not unfrequently, repeated depletion, copious evacuations, refrigerants, spare diet, and all which constitutes the antiphlogistic regimen. These principles are usually the first inculcated in therapeutics, and they generally occupy a larger share of the attention, both of the instructor and pupil, than the whole of the remainder of this branch of medicine. That they are of high importance, I trust no one will be disposed to deny; but I have the evidence derived from many years of observation, upon the prevailing practice of the present day, that there are other points equally important—that there are diseases, and of frequent occurrence too, for which "bleeding, vomiting, purging, sweating, and, in a word, every mode of evacuating the vessels of their fluids, and impoverishing the solids, which the ingenuity of man can contrive or invent," are not the best remedies.

Dans les cas qui dépend positivement d'une exubérance sanguine locale ou générale, la *saignée* est un moyen direct et héroïque, sans doute; mais leur nombre relatif sera d'autant plus borné, qu'on les aura soumis à un examen plus sévère.

ESSAY X.

STAGE OF FEVERS.

In every regular and distinct paroxysm of Intermittent-fever, there are three prominently marked Stages.

The first, or forming, or torpid stage, is characterized by a greater or less degree of inirritability or torpor, by languor and lassitude, and commonly, by a sense of coldness and rigors.

The second, or irritable stage, or the stage of reaction, is marked by a greater or less increase of irritability and sensibility, by a degree of watchfulness and restlessness, by increased frequency of the pulse, by increased heat and dryness of the skin, and by a greater or less degree of thirst.

The third and last stage, or the stage of exhaustion, is recognized by free perspiration, or sweating, by reduction of the temperature of the skin, by absence of thirst, and by a greater or less degree of exhaustion.

Each of the paroxysms appears to be an entire disease of itself, a continued Fever in miniature, a

prototype of all other febrile diseases, which runs its whole course in a few hours. The successive paroxysms are to be considered as relapses, rather than as parts of the original disease.

As in every regular and distinct paroxysm of Intermittent-fever, there are three stages, so in the course of every regular, continued Fever, and also, in perhaps all the Phlegmasiæ, Exanthemata, and Profluvia, when acute, besides certain daily changes, there are three similar and corresponding stages. In violence, duration, and regularity, these stages, from the laws of the particular disease, from the method of treatment, and from contingent circumstances, are subject to great variations.

The symptoms of the forming stage are described by every writer, and well known, when regular; though they are occasionally so slight, as to be entirely overlooked, or they are so mild and insidious in their approach, as to be mistaken for mere nervous, or even chronic affections, and, in some instances, would seem to be entirely wanting. When the disease is regular, the duration of this stage, is always less than twenty-four hours; but in anomalous cases, it may continue for days, and is hardly distinguished from predisposition.

The second, or stage of re-action, is subject to the greatest variations of the three, and is the most difficult, though the most necessary, to be understood.

In different patients, and in different epidemics, the symptoms of irritation are almost endlessly diversified. The pulse may be full, strong, and hard, or small, weak, and soft. In some instances, it is from a hundred and twenty to a hundred and fifty in a minute; in others, it is even slower than in health, and occasionally, irregular. The heat may be very much increased, or the temperature may be natural, or the skin may be even cooler than in health. There is often as great a variation with respect to thirst. The tongue also may assume almost *every* variety of appearance. In some low and sinking cases, this stage may be entirely absent, the forming and the sinking stages being blended in a universal exhaustion. When treated properly, it never continues longer than a week; and in every *regular* fever, it is uniformly attended with a greater or less increase of heat and frequency of the pulse, especially in the exacerbations, once or twice every twenty-four hours.

In another place, I have remarked, that all the *great* disputes concerning the treatment of Fevers, which have so much agitated the medical world, arise from the various views, which are entertained of the second stage. The *general* plan of practice, during the other stages, though there is a great difference in the promptness and execution, is distinctly pointed out by common sense; and since the days of

Hippocrates, it has been only questioned by the visionary and theoretic, or by those few unbending geniuses who consider, that they cannot be independent, unless they vary in opinion from the great majority of mankind.

The stage of exhaustion is sometimes scarcely perceptible; as under proper treatment, the transition from the stage of re-action to health, or at least to convalescence, is almost instantaneous. In other instances, it varies from a few days to two or three weeks. Every conceivable symptom of the asthenic diathesis may occur in this stage. Its violence, duration and degree of danger, depend principally on the management of the second stage. When simple fever is perfectly regular, this stage terminates by a distinct crisis, on the fourteenth or fifteenth day.

For *practical* convenience, these three prominent stages of fever may be called—the *forming* stage—the *preparatory* stage—and the *supporting* stage.

Hippocrates, it is asserted, accurately observed these different stages, and termed them, the beginning—the increase—and the height—to which he added the decline; but as this follows the crisis, we, with propriety, call it the stage of convalescence, and consider it, as strictly speaking, no more belonging to Fever, than the stage of predisposition. Both predisposition and convalescence, though they vary from perfect health, in medical language, cannot be called disease.

A Fever is *regular*, or benign (though the latter term, in common language, expresses more mildness and absence of danger, than when used *technically*, in medicine) when each of the two first stages is distinctly marked, and preserves its relative proportion of time, with its due proportion of the weight of the disease, and no troublesome symptom, except such as is peculiar to the species of Fever, supervenes, from the access, to the termination of the last stage.

A Fever is *irregular*, anomalous, or malignant, when either of the two first stages is wanting, when they are disproportionate in duration or severity, when any essential symptom is absent, or when it is present in an improper stage; when it is attended with any violent or accidental symptom of moment, in any stage of the disease, or when it is so rapid, that all the stages are accomplished in half the ordinary time. The irregularity of Fevers is often *factitious*, in consequence of improper treatment. The original, anomalous cases of Fever, have frequently a very unequal distribution of excitement, so that the brain, or some other vital organ, has to bear a disproportionate burden of the diseased action. In many instances, the stage of re-action is absolutely wanting, or so extremely feeble as not to be appreciable in practice. These low Fevers are liable to commence with paroxysms of *subsidentia*, or sinking, which are marked with the most intolerable sensa-

tions of anxiety, vacuity, and depression about the region of the stomach, with coldness, tremors, and sometimes convulsions, somewhat resembling Syncope, Hysteria, or other Neuroses, and to be attended with them through the whole disease. It is no very uncommon phenomenon, to find the patient, at the very access of such *sinking* diseases, with all the *real* symptoms of exhaustion, which are ever met with, in the last stage of the severest regular Fever.

During the first seven or eight years of practice in simple Fever, though I had many nervous and some putrid Fevers to treat, I did not meet with a single fatal, or indeed, any very irregular, or malignant case. Of late years, however, there have been several epidemics, in which (to use an Hibernicism) the anomalies have become the general rule. It is now rare to find an instance of either simple Fever, or any acute febrile disease, that is perfectly regular, in all its stages. Besides, at the present day, Fevers are frequently complicated with Pneumonia, Cynanche, Dysentery, &c. so that it is often difficult in a nosological point of view, to determine whether they are simple Fevers, or Phlegmasiæ. Under such circumstances, there must necessarily be some fatal cases; particularly in those, which from the beginning, are attended with an extreme exhaustion of vital power. However, as the indications are perfectly plain, if

they are met with promptness and energy, the practice is generally crowned with success.

In irregular or malignant epidemics, much *decision* and *caution* are required in the administration of Calomel, or it is of no avail. Where there is an early moderate determination to the *brain*, the patients reluctantly submit to the proper regimen. In this variety, Calomel, in full doses, must be combined with Opium, *sufficient* to prevent its having any more than a laxative operation. The mouth is to be touched as early as possible, and the mercurial action is to be *resolutely* continued, till a manifest sub-critical change. *Rapid* cases require a still more decided course of Calomel and Opium, or the Calomel is *worse* than useless. The *instant* a sub-ptyalism is perceivable, tonics and excitants must be *efficiently* prescribed. *Sinking*, irritable cases demand the immediate use of *all* the exciting and supporting agents, which are proper in the *last* stage of severe, regular Fever. Vomiting, purging, and even Calomel, are generally inadmissible. *Torpid* cases, *unattended* with sinking, are roused by Calomel-cathartics, and acrid stimulants, and sometimes, by moderate doses of Alcohol. The catharsis, however, must be closely watched, and speedily checked by Opium, as soon as its effect is produced. *Acrid* emetics are also used with much success, by many able physicians.

With the exception of the sinking cases, we break up as large a number of irregular Fevers, as of the regular, provided we are called *proportionably* early. There can be but little certainty of producing a resolution of a seven-day fever, after the first twenty-four hours; whereas, in a fourteen-day disease, we generally succeed at any time within forty-eight hours, and often on the third or fourth day, where there has not been previous mis-management. The great danger in irregular, rapid cases is, that the inexperienced physician will *measure* the stages by *time*, and not by the *urgency* of the symptoms; and thus, in his practice, will be three or four days *behind* the real indications. Such a *tardy* use of those efficient agents, which are adapted to the *early* part of the preparatory stage only, is worse than no medication. The disease is better trusted to nursing merely.

ESSAY XI.

TYPE OF FEVERS.

By Type is intended some external peculiarity in the *form* of diseases. It is, in some degree, analogous to *habit* in Botany and Zoology. It relates primarily to the intermittent and continued form of Fevers, and subordinately to paroxysm and intermission, or exacerbation and remission; and particularly to putrid, nervous, rheumatic, and hectical forms, &c. and likewise, to the periods of the occurrence of critical efforts, and complete crisis. These distinctions of type are often as apparent to observing nurses and attendants, who are not skilled in medicine, as the distinctions of genus, among Willows, Oaks, and Maples, to persons ignorant of Botany. The subsequent remarks will be principally confined to the differences between the *nervous* and the *putrid* type.

The nervous (mitior) type is distinguished, in the first stage of *simple* Fever, by rigors scarcely perceptible, or perhaps, only by a sense of coolness, or even merely a torpor, and by moderate languor and lassitude. The patient sometimes continues in this state for days, and occasionally for weeks, so that the forming and predisposing stages seem to be blended together. In the second stage, there is pain

immediately *behind* the eye-brows, a *moderate* increase of heat only, but without pungency, sometimes barely the natural temperature, or more rarely, by an actual reduction of warmth. There is either a paleness of the countenance, or slight flushes only, little or no thirst, moist tongue, pale urine, but little smell, or no uncommon fetor, from any of the excretions. The pulse is frequent, soft, weak, and often quick and small. Sometimes it is merely of the natural frequency, or even preternaturally slow, through the whole of this stage. In the third stage, there is coma, absence of pain, a moist and brown, or red tongue, a cool and moist skin, with tremors, subsultus, &c. The pulse, as in the second stage.

The range of this type is the widest imaginable; it includes diseases, from every degree of mildness, to those of the greatest possible danger. It comprehends epidemic Catarrh, which may be so slight as to admit of the patient's attending, without much inconvenience, to his ordinary business, and also Jail-fever, and Spotted-fever, either of which may end fatally in twelve hours, with diseases of every intermediate degree of violence and urgency.

The examples of diseases of this type are Nervous-fever (Typhus-mitior of Cullen) Jail-fever, the common Fever or infantile Remittent of children (Marasmus of Ayre) many, perhaps most cases of Intermit-

tents, at least in temperate climates, Spotted-fever of New-England, many, perhaps most, cases of Croup, some cases of Quinsy, or common Cynanche, in which the inflammation is neither phlogistic nor gangrenous, one variety of Pneumonia-typhodes, particularly the Bastard-pleurisy (Peripneumonia-notha of Sydenham) as well as Catarrhus senilis of authors, and epidemic Catarrh.

In the Spotted-fever, and many other sinking cases of this type, there is no re-action; the second stage is entirely wanting, and for several days, no evacuations whatever are admissible. I mention this fact in this place, as there is a moderately torpid variety to be noticed, which, though it belongs to this type, is often better managed by the occasional use of acrid emetics and Calomel, than by exclusively pursuing the highly stimulating course, that some young practitioners are liable to prescribe, to the neglect of a proper and necessary impression on the alimentary canal. All these cases, however violent, rapid, and mortal, they occasionally are, have no necessary tendency to putrefaction; and from this circumstance, furnish some of the best subjects for the dissecting room, and for anatomical demonstration.

However, in warm seasons, the same rapid decomposition, which follows death from drowning and violent accidents, may suddenly take place in victims to the Nervous-fever; and this is, in itself, no definite

sign, that the Fever was of the putrid type. Besides, in irritable cases, brisk or frequent purging, and even spontaneous diarrhœa, unless promptly restrained by Opium, is liable, at any season of the year, to produce tympanitic abdomen, which is extremely apt to end in sphacelation of the intestines.

The putrid (gravior) type of *simple* Fever is distinguished in the first stage, by the violence of its access, and by prominent and distressing rigors, and intense pain throughout the *whole* head. In the second stage, the countenance is either haggard, or has a sub-livid flush, the eyes are suffused, and turgid with fluids, the skin is parched, giving a sharp, pungent, acrid, or stinging sensation (calor mordax) to the feel, which remains for some time in the fingers, though the temperature is at the same time occasionally *less* than in health. The tongue is dry, the thirst usually great, the pulse generally frequent, occasionally slow, sometimes full though weak, at other times small and wirey. In the third stage, the skin is wet with a sordid fetid sweat, the breath is hot and offensive, the mouth covered with sordes, the tongue dry and clammy, with a brown, or greenish, or black fur, urine brown, or blackish and fetid, fæces blackish, sanious, colliquative, very offensive, and parted with profusely and insensibly, sanious hæmorrhages from the Schniderian and bronchial membrane, and alimentary canal, pulse frequent, quick, and tremu-

lous, general effluvia, notwithstanding the greatest cleanliness, offensive at a distance, frequently leaving, for some time, a disagreeable sensation in the nostrils and mouth of the visitor.

The examples of diseases of this type, are common Putrid-fever, or the Typhus-gravior of authors, Yellow-fever, many cases of Intermittents and Remittents in hot climates, Cynanche-maligna, the hot cases of Pneumonia-typhodes, such as some of Huxham's Peripneumonia-notha, which are mentioned in his treatise on Air and Epidemics, and the Pneumonia-putrida of Philip, some cases of Measles, Small-pox, &c.

Notwithstanding there has been so much cavilling at the term *putrid* in application to these diseases, yet it has a more obvious propriety, and is less liable to misconstruction, than any other word which has been employed; as in such cases, the actual *tendency* to putrefaction is so strong, that the excretions instantly undergo the putrid fermentation, on being separated from the body, and even the body itself, as soon as life is extinct, runs immediately into rapid decomposition.

The type of Synocha, or the actively inflammatory type, seems to be intermediate between the Nervous and Putrid; for when properly treated, it either ends with the termination of the second stage, or a Nervous-fever supervenes. When improperly treated, it either terminates at the end of the second stage by

a violent Hippocratic crisis, or degenerates into an unmanageable Putrid-fever. The only invariable mark of its existence, is a *strong*, *hard* pulse. It is attended with the other signs of the phlogistic diathesis, which are to be found in every systematic writer. A continued Fever, combined with the *peculiar* symptoms of arterial excitement, which Fordyce calls *general inflammation*, is a pure Synocha.

A genuine, phlogistic, or active, inflammatory Pleurisy, which, before it can be subdued, requires the loss of thirty or forty ounces of blood, and the administration of a suitable quantity of Antimonials, Nitre, and other refrigerants, is perhaps the best specimen of this type.

It is frequently questioned, whether a *pure* Synocha ever exists, as an idiopathic disease. I think, that no physician, who has practised twenty years, will deny, that he has met with cases of Fever with a *full*, *strong*, *hard* pulse, which have yielded to bleeding, Antimonials, Nitre, cold diluents, and other refrigerant and reducing agents, without being able to trace local inflammation in any particular organ. It is true, that in many such cases, we have some apprehension of Phrenitis. But is there any severe Fever, that is not liable to derange the functions of the brain, as well as those of the alimentary canal?

The distinguishing marks of these types are easi-

ly recognised, in the prominent cases. Every physician knows a real Synocha, at first view. None but a tyro can mistake the Nervous-fever (cool Typhus) for an active, inflammatory, or phlogistic case. The putrid type, when it exists in its most urgent degree, though apt to be confounded with Synocha, by the careless and superficial, is nevertheless easy of detection.

But, there is a very common variety of this latter type, that may be properly called the *sub-putrid*, which is almost universally confounded with Synocha; and it is usually treated, for some days, by the most powerful antiphlogistic regimen, even by our best practitioners. This set of cases, when compared with Nervous-fever, are more sudden in their access, and the rigors and pain more violent, though much less so, than in the most strongly marked cases of the putrid type. The skin is frequently more hot and dry, than in the more highly putrid cases, but it produces a much less degree of that *peculiar* acrid stinging sensation. The flush of the face is less livid. At first, the fur on the tongue is usually white, and the thirst considerable. The restlessness and anxiety are much greater than in nervous, and less than in ordinary cases of the most highly putrid Fever. The pulse is full, but instead of being *strong*, readily yields under pressure, and contrary to what is the fact in Synocha, it is not at all, or at least, but very slightly perceptible.

during the *systole* of the artery. In one word, it is never both *hard* and *strong*. In the early stages, there is no sordes about the mouth, though there is often an abundance of bile in the alimentary canal, and more rarely, there is a slight bilious tinge, not only of the conjunctiva, but sometimes, even of the whole surface. When these symptoms do not subside, but the case hastens to a fatal termination, all the more urgent putrid symptoms are developed, in the last stage.

This form, not unfrequently, occurs in temperate climates, during the universal prevalence of the asthenic diathesis; and it seems to predominate, under the same condition, in tropical countries. These are the cases, which are supposed to prove the occasional *intercurrence* of Synocha, during the existence of a general asthenic state. This delusion is continued by the fact, that they do not, like the cold Typhus, so obviously sink, but they frequently recover, after great depletion; especially, when it is vigorously followed by the Bark and tonics, though the convalescence is usually tediously prolonged, under such practice. Because these cases do not, like the nervous, show very immediate signs of exhaustion, they are supposed to *bear* bleeding well.

Whoever will be at the pains to study the subjects of diathesis and type thoroughly, and does not suffer himself to be led astray by theory, is in very little, or no

danger of mistaking any other form of Fever. But here, it is feared, indeed it is known, and is apparent every day, that many, otherwise able physicians, commit the grossest blunders. They do not, for several days, observe any difference between these, and active, inflammatory cases; except that depletion, and the antiphlogistic plan, do *not* answer their expectations, or essentially diminish the morbid action, unless they are carried far *beyond* all the bounds of ordinary *prudent* practice. The patient goes on without any material, or at least, *permanent* mitigation of the symptoms, nor, as they perceive, aggravation, till the critical period—here he sinks suddenly and unexpectedly. This sudden change, our predecessors considered as the *setting-in* of Putrid-fever. These sinking symptoms call forth all the exciting and supporting agents, in use among physicians, and if the patient recovers at last, they congratulate themselves, that they have cured so formidable and anomalous a disease.

I would not be very censorious with respect to this mistake, as free depletion, in such cases, was my own early practice. I then considered, as ordinary depletion made but little immediate impression, that they were the most violent phlogistic cases, I ever saw. However, as the patients were mostly young, and I followed the sub-critical change with the most efficient support, they very generally recovered.

There were then, as now, no accurate guides in relation to this variety, though we were not encumbered with the absurd theories of the present day. Later experience has shown me, indeed, it has reduced it to a demonstration, that *these* are cases, in which the Calomel and Opium practice, vigorously pursued, and suitably followed by the Bark, and its proper adjuvants, is vastly more successful, than any other known method.

To this variety are doubtless to be referred, Fordyce's regular simple Fever, with most cases of the Synochus of nosologists, Jackson's *supposed* actively inflammatory Yellow-fever, and likewise the epidemics of this disease, in which Mosely and Rush so highly recommended bleeding; also, most cases of the autumnal Bilious-remittent, and those Intermittents, in which depletion has been *supposed* to be indicated, with all the hot cases of both Armstrong's simple and inflammatory Typhus, and Welsh's Fever at Edinburgh, as well as most of the ardent Fevers (*Causus*) of the ancients, Miller's bleeding cases of Pneumonia in Virginia, the bilious Pleurisy of our Southern-States, and all the *hot* cases of Pneumonia-typhodes of the Eastern-States.

These deceptive cases of Pneumonia, *with us*, are often still further distinguished, by the peculiar *crude* appearance of the matter expectorated, which is commonly very abundant in quantity, resembling

a homogeneous mixture of much blood, with a little water and mucus. I have been the more precise on this variety of the putrid type, as the nature of these cases appears not to be *accurately* discriminated, by any writer whatever.

There is also a variety of the nervous type, that for the sake of distinction, may be called *sub-nervous*, or *torpid*, which merits distinct attention. It is attended with great torpor, through all the stages, and they seem confounded together. The patient sometimes suffers obscure pain (though for the most part, he complains of no pain) and has often so much muscular strength, as to walk about his room, and even to his neighbours, and frequently insists that he is not sick. The pulse is often morbidly natural, or as slow as in health, and the skin cool, with no thirst. There is usually a slight aberration of mind, with greater or less stupor; and generally, a local affection of the lungs, brain, or some other vital organ. At a critical period, there is great hazard of sudden sinking and death. On account of their insidiousness, such diseases are dangerous in the extreme. The able physician is surrounded with difficulties, and placed in the most trying situation imaginable. If he does not excite greater alarm in the mind of the patient and friends, than he would otherwise wish, he cannot induce them to follow a sufficiently energetic course, and the case is lost. If he does succeed in rousing them to

attend to his prescriptions, the patient more generally recovers with ease; and now, the attendant is censured for magnifying a trifling complaint.

Empirics and other artful, unprincipled practitioners, when they lose such cases, have a salvo for their ignorance and imbecility by saying, "*he died in a fit!*" Indeed, there is some plausibility in this excuse; for, when Typhus is suffered to run down and sink, for want of proper support, there is, not unfrequently, a metastasis to the brain, producing spasms, deep coma, or convulsions, which end in death, or some chronical affection. Such symptoms can be easily imposed on a credulous world, for idiopathic Apoplexy, Palsy, Tetanus, Dropsy of the brain, or Insanity. However, when the patient is properly treated, he is usually carried safely and comfortably over the disease, and has a rapid convalescence.

Good's Synochus-soporosus, Darwin's Paresis-inirritativa, painless Pneumonia-typhodes, Sydenham's Winter-fever, with perhaps all the torpid, painless, cool, acute, febrile diseases, that have no peculiar tendency to putrefaction, and which, in the second stage, are liable to be attended with a slow pulse, belong to this variety.

This *torpid*, sub-nervous variety differs, however, from those real *sinking* cases, in which the second stage is *absolutely* wanting, as it is usually capable of being roused by Sanguinaria, Sulphate of Zinc, and

other *acrid* stimulating emetics, if boldly given, in sufficiently large and frequent doses. Calomel, if assisted with Capsicum, Aromatics, or sometimes with Alcohol, is peculiarly adapted to it, either as a cathartic, or alterative, and, in general, is the best practice. It is of much importance to distinguish this, from that *irritable*, sinking variety, in which every evacuating agent is deleterious, and most generally fatal.

In a systematic work, it would be proper to describe the intermittent, remittent, hectic, and rheumatic forms of Fever. But, as they are to be found in so many writers, it would be needless. It is not thought expedient to encumber this volume, with dissertations upon subjects which are already so well understood, as to preclude the possibility of mistake.

Without an accurate knowledge of the subject of Type, as it is exhibited in the *putrid* and *sub-putrid*, *nervous* and *sub-nervous* forms, a physician is liable to innumerable mistakes, in the treatment of the acute febrile diseases of the present day.

ESSAY XII.

CRISIS AND CRITICAL PERIODS.

All febrile diseases have a tendency to observe regular periods in their exacerbations and remissions. But, whether they maintain the same regularity in their critical efforts, or complete crises, and periods of continuance, is a question, concerning which, there are various opinions. I shall summarily state what is the result of my own observations and inquiries; and I am happy to add, that it fully accords with the experience of those of my medical friends, for whose judgment, I have the highest respect.

I can confidently assert, that *with us*, every *regular* continued Fever, besides one or more quotidian exacerbations and remissions, is subject to certain other uniform and stated revolutions, and does in fact pay regard to certain other definite periods, at which there is more or less critical effort, and at which, likewise, the disease inclines to terminate, either in the *commencement* of convalescence, or in the *sinking* of the patient.

Of these periods, the seventh, the fourteenth, and the twentieth, or twenty-first days, seem to be of primary importance, while the fifth and the ninth, are only of secondary consequence. There is sometimes a critical effort on the third, and the eleventh, but it is still less prominent, and less likely to be decisive, than that of the fifth and ninth. Notwithstanding what is asserted by systematic writers, who so minutely describe the phenomena of diseases *from their closets*, I have very rarely witnessed either a decided crisis, or critical effort, on the fourth. It must be observed, however, that the subordinate critical periods are of more consequence in a disease, whose natural duration is only seven days, than in one, whose usual duration is fourteen; and that, as a general rule, the longer the disease continues beyond its natural period, the less prominent are the critical efforts. This is more especially the fact with respect to a fourteen, than a seven-day disease.

So powerful is this tendency to the observance of these particular periods, that the most mild continued Fever, seldom or never, terminates spontaneously in convalescence, except on one of these days; nor is the severest, very likely to be decided by the sinking of the patient, except at such times.

Whenever a seven-day disease is broken up, by judicious and appropriate medication, it uniformly happens (if not at the termination of the first paroxysm)

on the third or fifth; or a fourteen-day disease, it is on the third, fifth, seventh, or ninth; nor will the most injudicious medication, in general, produce much *obvious* injury, except at some of these periods.

Ignorance of these laws, has led many to decide hastily, that medication, on the one hand, is of no service, in breaking up, or shortening a febrile disease, and on the other, that it is not capable of doing any material injury. But though every important change in Fevers takes place at a critical period, yet whether the disease ends at a shorter period than the natural, or terminates favourably at last, or whether it continues longer than the natural, and ends fatally in the event, depends much, and in many cases, absolutely, upon the treatment.

It must be noticed that I say, the patient *begins* to convalesce, or *sinks*, or in a word, that the case *is decided—the judgment* is formed, at these critical periods. The fact, that the patient is not *instantly* recovered, or does not *actually* expire, at these *particular* times, cannot be considered as an argument against the general doctrine.

Whenever a patient dies, previous to the third day of a febrile disease, the failure happens in the course of the first paroxysm, and generally, before what is called the stage of re-action, takes place. This has taken place, perhaps most frequently, in the disease, called, in Hartford, and its vicinity, Spotted-

fever; but it does likewise occur sometimes, in malignant Intermittents, Yellow-fever, malignant or gangrenous Quinsy, typhoid Pneumonia, and Dysentery; and during the prevalence of the lowest asthenic complaints, it may more rarely occur, in any acute febrile disease. In these instances, the exhaustion of the torpid, or forming stage, is so great, and it so nearly extinguishes the vital powers, as not to leave sufficient to admit of re-action. Such cases have been frequently mistaken for Apoplexy, or more indefinitely, have been pronounced *fits*, of some indeterminable, or unknown kind.

Every specific continued Fever, as has been before implied, has a definite period, which it has a strong tendency to reach, and at which, in a great majority of cases, it naturally inclines to terminate. This period is not, in any *regular* case, less than seven days, or more than fourteen. Accidental circumstances, on the one hand, occasionally reduce a seven-day disease, to one of five, or even three days; or, on the other hand, extend its duration to nine, eleven, or fourteen days. Similar causes may likewise reduce a fourteen-day disease to seven, or even a less number of days; or, on the contrary, extend its duration to three, or more rarely, to four weeks; and, under bad management, it *may* be protracted so long, as to assume a chronic character. A seven-day disease, when it continues beyond its regular period, most ge-

nerally inclines to go on to the fourteenth, but a fourteen-day disease, under the same circumstances, rarely exceeds the third week. What is frequently supposed to be Fever, after this period, is often little else than irritation, in consequence of debility, with morbid excitability. Sub-acute febrile diseases, by *proper* treatment, may be made to follow the laws of acute Fevers; but, when badly treated, or neglected, they degenerate into chronic—as sub-acute diseases of the lungs, are followed by Hectic.

It must be admitted, however, that in some *irregular* cases, the commencement of the disease, and the recurrence of the critical efforts, as well as the exacerbations and remissions, are too obscure, to be distinctly perceived; but, as these cases, in comparison with the whole, constitute so small a proportion, I think the analogy is sufficiently conclusive, in favour of their real regularity in this respect, to satisfy every rational mind.

Let it be noticed, that, by a *perfect* or *complete crisis*, is meant *a sudden change, in an acute febrile disease, by which a judgment is formed, either of the probable death, or recovery of the patient;* and by an incomplete or *partial crisis*, is intended so imperfect a change, that a judgment can only be formed of the violence, duration, and other accidental circumstances, while the event remains still uncertain.

The doctrine of the ancients upon this subject,

when divested of all groundless theories of morbific matter, fermentation, concoction, despumation, elimination, &c. is briefly, and as far as regards practical purposes, as follows.

The changes supposed to constitute a perfect crisis, are entirely *different* from those symptoms, which are *essential* to the character of the disease. The most obvious of the changes, constituting a complete crisis, are some of the following, which usually supervene *suddenly*, upon a *striking exacerbation* of most of the essential symptoms, viz. sweating, ptyalism, vomiting, purging, hæmorrhage from the nose, rectum, or uterus, a thick sediment in the urine, eruptions, tumors, and abscesses. It was maintained, that these, or some combination of them, take place either *with* or *without* medication, at definite and precise periods, with nearly equal certainty, and without any other assignable cause, than that they are the consequence of the *peculiar laws* of the disease; though it was still allowed, that the event is influenced by the treatment.

The eruption of pustules, efflorescences, buboes, &c. as in Small-pox, Measles, and Plague, which are *regular* symptoms in these diseases, would not have been considered, as strictly critical; but as helping to judge of the violence, duration, and other circumstances, they would have been referred to the signs of partial crisis. The changes of countenance,

pulse and circulating system, tongue and mouth, temperature and skin, respiration and expectoration, urine, and internal and external senses, as they relate to symptoms, in a greater or less degree, *essential* to the disease itself, were considered, as more properly belonging to this subdivision, than to perfect crisis.

Partial or imperfect crises, were supposed to occur at the minor, or *sub-critical* periods; but perfect or complete crises terminated the disease, though they might be followed by a *relapse*, or by the *supervention* of a new disease, as Typhus upon Synocha.

Such appears to be the doctrine of the ancients, and of the earlier physicians among the moderns, on the subject of crisis. When applied to phlogistic diseases, under *their* moderate, and nearly inert treatment, it is, without a question, strictly correct; and it will, in all probability, hold equally true of typhoid diseases, when left entirely to nature, or treated upon an irregular and injudicious plan. But, in the Fevers of the present day, when they are skilfully managed, *none* of the violent changes, which constituted the perfect crisis of the ancients, are to be expected. *Their* debilitating and sinking effect, is what *we* most dread. A principal aim of modern practice, is to counteract, to anticipate, to modify, or to prevent, these turbulent efforts of nature, before the strength of the patient is exhausted by disease, and thus to con-

duct him safely and calmly, over the critical periods, and, by these means, prevent the hazard of life, which would otherwise occur, from such excessive efforts of the system. In other words, the *same* end is obtained, by very *different* means.

The efforts of nature, when assisted by *our* treatment, are moderate, and, in a great measure, under our control; and we gain all the benefits of a perfect crisis, without any of those violent exertions, that attended this change among the ancients.

The duration, and critical periods of *our* diseases, are as precise as in the days of Hippocrates; but the phenomena attending critical changes, are much *less* vehement, and of consequence, much less liable to be noticed by *superficial* observers. We are, therefore, left to seek for the evidences of a critical change, in those *signs*, which the ancients considered, as belonging to the *essential symptoms* of the disease. Though at first view, it is agreed, they are not equally palpable, with the *complete* critical signs of the ancients, yet, by an attentive observer, when taken in the *aggregate*, they are *definite enough* for every *practical* purpose, and produce conviction amply sufficient, for forming an accurate judgment of the event of the case.

The truth is, that when a Fever, which has been properly managed, according to the best modern practice, arrives at a critical period, the *quantity* of mor-

bid action must be greatly diminished; besides, the *quality* is essentially changed, and the disease is comparatively mild; so that a much slighter variation will be requisite, to ascertain that there is a *decisive* change, than if it had been suffered to run on, in all its native violence, which the inert or desultory (and indeed, sometimes rash) treatment of the ancients, had little tendency to mitigate.

If I am not much deceived, this view of the subject clears up every difficulty, upon this important question. The physician, who expects a Hippocratic crisis of ptyalism, sweating, vomiting, purging, or hæmorrhage, demands too much, and what even *he* would dread to meet with, as all his treatment has tended to a different result. Very happily, therefore, is he disappointed. Nor can he expect such a termination, unless he would revert to the practice of Hippocrates, and renounce all the improvements of the moderns.

The difference in the manner in which diseases now terminate, when rightly considered, is the strongest of all possible proofs, of the superiority of *our practice*. Indeed, I do not recollect a single symptom, that is considered by the father of physic as mortal, from which *our* patients do not *frequently* recover. *Our* depletion, when judiciously employed, anticipates the hæmorrhage of the *ancients; our* method of clearing the alimentary canal, prevents *their* spontaneous vomiting and purging; *our* use

of diaphoretics, supersedes *their* sweating; and by *our* supporting and tonic course, we avoid *their* exhaustion of the vital powers. It would be easy to continue the parallel much farther.

Under this view of the subject, and this is the only way of seeing it in its proper light, every physician, of *accurate* observation, and *true* experience, cannot fail to acknowledge, that *our* Fevers are subject to as real and complete, though not to such prominent crises, as those of the ancients; and if his discrimination is anywise *accurate*, he will see, that they occur at the *very same* critical periods.

To assist in this discrimination, it is proper in this place to specify more in detail, the most important changes, that happen in these diseases, under *our* management, by which we are enabled to ascertain, that we have either arrived at a critical period, or that a complete crisis has already taken place.

The principal phenomena, that under the best modern practice, mark critical effort, or complete crisis, which vary in degree rather than in kind, are the following. The countenance assumes a bright and animated aspect, the features lose the marks of anxiety and distress, and the eye becomes clear and natural. A frequent pulse, becomes slower, a hard one, soft, that which is small, becomes full, and one preternaturally slow, becomes quicker, and every irregularity is diminished, or disappears. A furred tongue,

becomes clean, or a thick and foul coat, gives place to one which is light, a dry tongue becomes moist, a pale one assumes a more healthy colour; a tongue, which is contracted, or flabby, or bloated, or of a fiery red, assumes a more natural state. Tremors, subsultus, and difficulty of motion disappear. Aphthous crusts, slough from the mouth, and gangrenous, indolent, or vitiated ulcers of this part, assume a benign appearance. A hot or cool skin assumes the natural temperature, a dry and husky skin becomes moist and soft, a velvet, or silky, or oily feel disappears, morbid diaphoresis, or fetid sweat vanishes, and a motley, marbled, bloated, or leucophlegmatic appearance, abates. Respiration becomes easy, and the excretions from the bronchial membrane, free and benign; if previously tinged with blood, or of a brown or dark colour, or acrid, or fetid, they are changed to a yellowish, or light colour, become bland, and are thrown off with ease. Irritability, or torpor, of the stomach and bowels ceases, morbid evacuations become natural, and appetite, and a relish for customary food, return. Thick and muddy, or high coloured urine, deposits a sediment, on standing a short time, and that which is pale, or black, or offensive, becomes natural. Hebetude or irritability of mind, or delirium abates, sleep becomes easy, and refreshing, and there is a restoration of the natural state of all the external senses.

These changes, when critical, as is the fact with

those of the ancients, generally *follow* a prominent *aggravation* of symptoms, and are, to a greater or less degree, *sudden*, and occur without any *adequate*, assignable cause; so that a *greater* amendment is usually observable, in the course of a day, than has probably taken place, during the whole *previous* course of the disease.

When the crisis is perfect, we are often able to make a *sudden* abstraction of all the medicine; the system requiring no other support, than nourishing food. A rejection of all medicine is often the *first* sign of crisis. This appears to be an unanswerable refutation of the doctrine of indirect debility, when applied to those Fevers, which during their last stage, had required the most powerful stimulants.

Though crisis enables us to judge equally of a favourable and an unfavourable event, yet it is obvious, that the preceding detail of changes, refers more particularly to a favourable termination. It will be sufficient merely to remark, that we predict a fatal event, from a reverse variation of symptoms.

In a few instances, though much more rarely than has been imagined, Fevers are so *violent*, as to destroy life without any obvious crisis; or on the contrary, they are so *mild*, and yield so gradually, as to have no definite period of termination.

Intermittents and Hectic, though their paroxysms are subject to well known laws, have no definite period of duration.

Continued Fevers, as has been before remarked, are subject to a quotidian period, or some duplication of it, and likewise, as, I contend, will appear from accurate observation, to *hebdomadal* and other *subordinate* periods. The latter only have been commonly supposed to be critical; but it is most probable, that in strict propriety, the quotidian exacerbations and remissions are likewise ineffectual, or partial and incomplete, efforts at a crisis. But without encumbering this Essay, with any theoretical discussion on this point, let it be remarked, that the only periods here insisted on, as such, are those, upon which the disease either *terminates*, or undergoes some *important* change.

In ordinary Synocha, Jail-fever, and Yellow-fever, the disease usually terminates at the end of the seventh diurnal paroxysm, which may be considered as their natural period; though the patient sometimes relapses, and goes through another hebdomadal period; or, as our predecessors were in the habit of saying, another Fever *sets in*, that is, supervenes.

In common nervous and putrid Fevers, fourteen days seem to be the natural period; though there is usually a prominent, but imperfect, or *sub-critical* change, at the end of the *first* seven days. If these Fevers do not terminate on the fourteenth, the remainder of the illness, though it may continue one or two weeks longer, in most cases, seems rather to

be a relapse, than a regular continuation of the original disease. When convalescence does not commence, immediately after the fourth week, it is an almost *invariable* sign, that the patient has been either feebly or improperly treated; as *mild* Fevers, under imbecile or injudicious practice, are well known to be occasionally protracted two or three months.

In acute Phrenitis, Cynanche, Pneumonia, and Hepatitis, together with the rest of Good's genus Empresma, and likewise in epidemic Catarrh, Scarlatina, Measles, Chicken-pox, Erysipelas, and Plague, the natural period is probably seven days.

In *genuine* acute Rheumatism, Kine-pox, and perhaps mild Small-pox, the natural period is probably fourteen days.

All the other Phlegmasiæ and Exanthemata seem to be either *sub*-acute, or absolutely chronic, and in the latter case observe, of course, no regular critical periods.

Now, as I have before hinted, it seems to be a law of acute febrile diseases, that unless their course is suspended at the end of the first paroxysm, they must inevitably go on to some one of the critical periods; so that, even in a Synocha, neither the most heating regimen, the freest use of cordials and stimulants, as Opium, Alcohol, Aromatics, &c. nor external heat, nor indeed all the most absurd measures of the alexipharmic plan combined, are capable of

destroying life, *except* at a critical period. The worst effect of such practice is to produce, at one of these critical periods, a genuine Hippocratic crisis, of vomiting, purging, or hæmorrhage, so excessive in degree, as to be liable to baffle all efforts to restrain it; or otherwise, to change the disease into a violent and unmanageable Putrid-fever.

In Typhus, in like manner, neither bleeding *ad deliquium*, nor drastic vomiting and purging, nor the forcing of the most colliquative sweats, nor the steady and persevering employment of the most efficient, reducing and debilitating, refrigerant course, such as Antimonials, Nitre, &c. *the very lowest cases excepted*, will be at all liable to destroy the patient, unless at a critical period.

Such preposterous treatment, either in Synocha or Typhus, upon the principle of its producing a *new* and *strong* impression, not unfrequently affords temporary relief; and so strong are the powers of life, in some individual instances, that a genuine and successful counter-irritation is produced, and the patient even recovers, in defiance of such medication.

It is calculated, that under the ancient heating management of Small-pox, not more than two, out of five, died; nor is it probable, that Cynanche-maligna, and Pneumonia-typhodes, are much more fatal, under the equally absurd, depleting, and antiphlogistic plan. Indeed, in ordinary cases, no treat-

ment, however injudicious, which is short of direct and absolute *poisoning*, or *butchering*, will destroy the life of the patient, at *any other time*, than at a critical period—so precise and invariable are the laws, which *control* the course and progress of disease.

Before closing these remarks, it may be proper to state, that a *day*, in the medical acceptation of the term, does not *always* consist *precisely* of twenty-four hours. It is reckoned from a *given* exacerbation, to its *corresponding* one, on the succeeding day; so that there may be, either a regular *anticipation* of one, two, or more hours, on the one hand, or a similar *postponement*, on the other. Hence, it is obvious, that if the disease continues a sufficient length of time, the crisis *may* be either *accelerated* or *retarded*, twenty-four hours. From this consideration, the twentieth *natural* day is sometimes critical; at others, the twenty-first. The same variation may take place in a seven, or in a fourteen-day disease.

I cannot better conclude, than in the language of an able and distinguished writer. "Those authors, who since the time of Asclepiades, have denied the power of critical days in Fevers, are numerous, and many of them possess considerable authority in the medical world." "Their opinions, however, cannot be considered, as of great influence in the present case, though they may assert, that *they never have observed*

the pre-eminence of any particular days, in terminating febrile diseases." "Such an assertion means but little, unless its author convinces us, that *he* has adopted a method of investigation, by which those regular movements, if they actually existed, *could not fail* to be discovered." "Truth, in the present case, can only be known from *minute* and *careful* observation." "The subject of critical days is of such importance, as to demand every attention. A knowledge of it gives credibility to our art; whilst *ignorance*, in this respect, is the source of *perpetual mistake* and disappointment." There are many Physicians of the present day, who treat the idea of critical periods with ridicule; but their assertions only afford an argument of their own precipitancy and *superficial* observation. "The man, in reality, who pretends to cure a Fever, without a knowledge of the critical periods of nature, is no less presumptuous, than the mariner, who undertakes to conduct a vessel through the ocean, without being first instructed in the manner of calculating her course."

ESSAY XIII.

DIATHESIS.

By DIATHESIS is intended some peculiar disposition, condition, or state, of the whole, or a part, of a diseased animal system. It is often used as a term synonymous with predisposition; thus we say, such a patient has an arthritic, a strumous, or a phthisical diathesis. But, in this Essay, the two most important points, to which it refers, are debility, or an asthenic, or typhoid* state, and a sthenic, or phlogistic, or actively inflammatory state.

By debility, or an asthenic, or typhoid state, is intended, a deficiency of strength of action, caused by a deficiency of vital power in the whole, or a part, of a diseased animal system, and essentially attended with a *weak* and *soft*, or *small* and *wirey* pulse, which is liable to be increased by depletion, evacuations, refrigerants, and other reducing means. Debility relates principally to the *circulating system;* since, where this is deficient in vital power and strength

* The term *typhoid* is much more limited than *asthenic;* it being confined to *acute febrile* diseases. Asthenic is a general term, applicable either to acute or chronic, universal or local diseases.

of action, the other parts of the system, either immediately, or before long, are found to languish. Debility is sometimes attended with irritability, and sometimes, with torpor. For practical purposes, there is no utility in the distinction of *direct* and *indirect* debility; as it has the same characteristics, is subject to the same laws, and requires the same treatment, whether produced by starvation, or the long continuance of Fever, whether by fire, or frost.

A sthenic or phlogistic state, is directly the reverse of debility, and of consequence, consists in increased strength of action, attended by an essential increase of vital power, which is especially manifested in the *circulating* system, by the presence of a *strong-hard* pulse. It is invariably augmented by such stimulants as Alcohol, Cinchona, &c.

Violent pain in the head, back, limbs, or viscera, furious delirium, and extreme restlessness, considerable heat and dryness of the skin, prominent and visible throbbing of the carotid arteries, laborious respiration, suffusion of the eyes, flushed face, and local inflammatory affections, especially of some internal part, with muscular strength, even *greater* than in health, have all been supposed, but very *erroneously*, to indicate a sthenic diathesis. It is confidently believed, that each of these symptoms individually, and even the whole collectively, without the strong-hard pulse, are often found in completely asthenic cases.

Indeed, most of these symptoms are occasionally combined with the struggles of the dying.

By prostration, depression, oppression, &c. is intended, a deficiency of strength of action, in cases where there is a real increase of vital power. This state is aggravated by stimulants, and relieved by depletion and evacuations. Prostration of arterial strength is more generally found, at the commencement of *irregular* cases of genuine sthenic or phlogistic diseases, and occurs very often, in the muscular system, in regular cases. Prostration of this kind, need not be mistaken, as it occurs at times, when the general diathesis of diseases is most highly of the sthenic kind. At the *very* commencement of asthenic and truly typhoid Fevers, there is *always* a greater or less degree of *real* debility.

There is also such a thing as a considerable degree of *prostration*, instead of much *exhaustion*, in the early stages of some irregular typhoid diseases, so that the debility may *appear* to be greater, than it is in reality. It occurs, in particular, in the sub-nervous or torpid variety of the nervous type. It is attended with but little sense of languor or pain, or even of indisposition; and is marked by a peculiar torpor, of one or more, of the vital organs. Such cases manifest but slight distinctions of stage, and are not easily affected by ordinary medicine. Depletion, and drastic and refrigerant vomiting, purging, and sweating injure;

but quick emetics of Zinc, Copper, Sanguinaria, &c. frequently excite susceptibility, and rouse the patient. After the operation of these, a much less quantity of excitants and tonics will support the patient, than might otherwise have been demanded. On the other hand, in the most sinking diseases of the nervous and putrid type, we frequently meet with cases of Cynanche-maligna, Croup, Pneumonia, and Dysentery, in which this treatment only sinks the patient, without the least relief. This is exhaustion; and it is often as complete, when the physician is first called, as in the last stage, and is out of the reach of any kind of evacuating or depleting agents. A single enema reduces.

To attempt to illustrate a subject, which has been so much confused, is no easy or desirable task. The very similes, which we use, being not always exactly parallel, are among the sources of difficulty. Prostration in Synocha, is torpor without debility. The excitability is not deficient, but only latent, and it is brought into action, by the impression made by depletion and evacuation. Prostration in Typhus, is also torpor; and when the debility, which, in some degree, always attends this disease, is not great, it is overcome by evacuants; but, when extreme debility exists, whether there is torpor or not, powerful excitants must be first used, and even then, evacuants require the greatest caution. Upon the principle of

counter-irritation, moderate debility and moderate torpor are often best removed by the very same agents; as in the instance of Calomel-cathartics, or appropriate emetics. Moderate stupor from Opium, is torpor; the excitability becoming latent, but not materially impaired. Opium, in hazardous doses, produces exhaustion of vital power, and destroys the excitability. Coma, in the last stage of Fever, always arises from exhaustion. Excitants and tonics appear to act upon a two-fold principle; first, by stimulating the *latent* excitability, and calling into action the *existing* vital powers; secondly, by furnishing a new *pabulum vitæ*, which removes the debility. The inability of the system under exhaustion (to adopt the simile of an able author) resembles a weakened or broken spring; but in prostration, the spring has not room to play. In the former case, a man has not sufficient strength to perform the offices of life; in the latter, he is a prisoner, bound in chains. The imprisonment, however, may be continued so long, or the chains may be so heavy, as to destroy his strength. Thus, prostration or oppression naturally ends in exhaustion.

The distinctions of asthenic and sthenic, apply equally to the Phlegmasiæ and Exanthemata, as to simple Fevers; nor is the etymological signification of the term *inflammation*, to be more regarded, at the present time, than that of *fever*.

That there are cases so near the line which separates the two diatheses, as to be with difficulty referred to either, occasions no embarrassment in practice: because it is the tendency of disease to produce diminution of strength, so that every instance of Fever, which, at its commencement, happens to be neither positively sthenic nor asthenic, is inevitably reduced to the latter, after the employment even of the least reducing preparatory measures. In fact, genuine Synocha, if not broken up at its access, or if it does not terminate the first week, ends subsequently in an asthenic disease.

There can be no possible reason given, why the efficient causes of disease, should not primarily produce diminished strength of action, and diminished vital power, as well as prostration. But whether a reason can be given or not, there is "*no argument like matter of fact;*" and it is certain, in defiance of all theory, that diseases do exist, and have existed from the days of Hippocrates, which, from their very commencement, and throughout every stage, are attended with absolute debility, as above defined, and even occasionally to such a degree, that Wine, and all the moderate stimulants, prove absolute atonics; though most of these very cases are capable of being relieved, and eventually cured, by more efficient exciting agents. This plain fact is supported by the amplest testimony, of judicious and discerning wri-

ters, and is confirmed by the soundest experience of living practitioners; nor can it ever be set aside by the most plausible and ingenious reasoning, or the most extensive negative testimony, and negative experience, of any man, or body of men, who have not discrimination enough to have observed such cases.

Probably, the *simple* Fevers are always individually uniform, as respects period, type, and diathesis; though, instead of convalescence, a disease of different diathesis may sometimes supervene. But those Fevers which are essentially, and from the first, complicated, either with eruption, inflammation, or profluvia, often vary individually from diversity of circumstances, in each of these respects. From these causes, different cases of the same specific disease, when of different diathesis, type, or period, often require very various treatment; while perfectly distinct diseases, when alike in diathesis, type, and period, may require essentially the same method and means.

In illustration of these remarks, I would farther observe, that according to my view, Synocha always is of the same type and diathesis; when health does not immediately follow, the supervening diseases are elsewhere mentioned. Typhus is always asthenic, from its commencement, whether it first attacks the patient, or follows a preceding Synocha. But, we can form no accurate judgment of type, diathesis, or

even of the propriety of practice, from the bare *name* of scarcely any other acute febrile disease. Thus, Pneumonia may be of either diathesis, or type, or variety of either type, and require an appropriate treatment. When the attending Fever is Synocha, depletion and reduction must be pursued to the fullest extent, and stimulants are poisons. The Small-pox, Measles, Quinsy, Phrenitis, and Dysentery, and all the Fevers, which are attended with local inflammation or eruption, although they retain their nosological name and character, are subject to the same variation, in different persons, and different epidemics. From ignorance of these facts, and attending to the nosological character only, thousands of lives have been needlessly wasted.

It has been elsewhere stated, that the stage of irritation is not unfrequently absent, in the *irregular* and malignant cases of Fever. Whoever, therefore, measures his stages by time only, without attending to the peculiar symptoms, and considers an alterative course, of perhaps a week, to be necessary, before the patient can enter upon the use of tonics, and other exciting agents, must necessarily endanger, or most probably, destroy the life of the patient, in every low and sinking case. In every regular typhoid Fever, a stage of greater or less irritation, is *universally* acknowledged to exist. But, as has been amply proved in the course of these Essays, this stage

is essentially and entirely different from phlogistic inflammation; and whoever attempts to combat it by antiphlogistic agents, will produce essential, and often, irreparable injury.

In the typhoid epidemics of the present day, *with us*, there is no intercurrence of sthenic cases; and indeed, during the general prevalence of the asthenic diathesis, even when no epidemic is present, individual cases of any disease, even of a *moderate* sthenic character, are, for a general rule, entirely unknown. I have stated in another Essay, that I have met with only three or four phlogistic diseases, in the last seven years.

As all diseases, therefore, are either absolutely, or, as respects the indications of practice, essentially of the sthenic, or asthenic diathesis, so all the general indications and treatment, must be in conformity. The *sthenic* diathesis, invariably, requires *reduction* and *counteraction;* and the *asthenic*, *counteraction* and *support.*

It is proper here to remark, that though for common purposes, we use various other terms, to express the different shades of the action of remedies, such as equalizing excitement, changing morbid action, &c. yet, strictly speaking, they are all parts of one, or other, of the following processes, viz. *counteraction*, or *concurrence*, *reduction*, or *support.*

Depletion of blood, and evacuations from the ali-

mentary canal, by emetics and cathartics, are the only manageable, *direct* reducing agents, in our power. Continued nausea is not easily controlled, and is usually excited for promoting expectoration or perspiration; and none, but a madman, will attempt, upon Brunonian principles, to reduce sthenic action, by excessive doses of narcotics. Diaphoretics, though often highly necessary as counter-agents, can seldom be so managed, as to be of service by the evacuation, which they produce; and they are never necessary for this purpose. As long as reduction is necessary, it can be better accomplished by other means. The same remarks are applicable to epispastics, errhines, expectorants, and sialogogues; and, except in cases of Dropsy, to diuretics. Each of these classes of medicines, contrary to ancient opinions, are now known to be serviceable, only as counter-agents; and the discharges, which they occasion, do not, for a general rule, consist of morbific matter, but are viewed as *tests* of their operation, in changing the diseased action. Even cold affusion in hot Typhus is a counter-agent, and by no means, a reducing agent. Nitre, and the other articles usually termed refrigerants, I consider as counter-agents, which are adapted to a phlogistic state of the system.

But, it is not every emetic and cathartic, and every variety of management in their administration, that is capable of producing, what is essentially an evacua-

tion, or one, which operates as a reducing agent. Barely clearing the alimentary canal of its contents, and nothing farther, can scarcely be said to be a reducing evacuation, any more, than cleansing a foul skin with soap and water.

By a judicious choice of articles, and by skilful management, depletives and evacuants, in actively inflammatory cases, may be made, at the same time, to produce important counteracting effects. Is a sthenic disease to be broken up at its access? Depletion of blood should be accomplished, both quickly and powerfully, (without producing syncope, however,) and be promptly followed by suitable refrigerant and reducing articles. By such a conjunction of reduction and counteraction, much more may be performed, than by the same degree of depletion and evacuation, when slowly accomplished, and with articles incapable of producing any appreciable effect, except mere evacuation.

On the other hand, in asthenic diathesis, all depletion and evacuation, *as reducing agents*, are always unnecessary, and invariably injurious. In *acute* asthenic diseases, bleeding is probably never judicious. In chronic cases, it is occasionally serviceable, for the purpose of increasing susceptibility to the action of other articles; but, it should be always promptly followed by efficient counteraction and support. Vomiting and purging ought always to be accom-

plished, by such articles, and to be so managed, as to prove only counter-agents, or to produce such a new train of action, as to overbalance their reducing effects. When used for making a single powerful impression, they should be administered with much caution, and be managed by an experienced hand. Moderate torpor is easily exchanged for troublesome irritability, and dangerous exhaustion, by the improper administration of emetics and cathartics. When there is the least tendency to excessive action, their effect must be immediately checked by Opium, and other efficient support. For a general rule, unless a brisk action is required for overcoming torpor, they should barely obviate constipation, when any exists, or just remove any indigested sordes, or morbid secretions, that may have accidentally accumulated in the stomach, and intestines, or any viscid mucus, with which the alimentary canal may occasionally be coated. There are also certain Neuroses, and other chronic complaints, unattended with much arterial debility, which are relieved by daily irritating the alimentary canal, with stimulating cathartics, for a considerable time. Such cases, however, are generally much assisted by the interposition of Iron, and other metallic tonics. Acrid emetics are sometimes very useful, on the same principles.

The awkward and rash practice, which indiscriminately employs the most profuse bleedings, with

drastic emetics and cathartics, in expectation of producing counteraction, by a sudden and powerful impression, though sometimes successful, especially in torpid cases, and the sub-putrid type, is always to be *reprobated*, as hazardous in the extreme. It much the more frequently exhausts the powers of life beyond recovery, or produces an unmanageable irritability of the whole system; and even in the instances of apparent success, it is usually followed by a lingering convalescence, and universally exposes the patient to chronic diseases, and all the ills which attend an impaired constitution.

This distinction between a reducing and a mere counteracting evacuation, may be considered as trifling, by some, and by others, as a useless refinement; but I deem it of high importance. Without a distinction of this kind in view, an inexperienced practitioner would be likely to employ the same agents, and the same method of administration, both in sthenic and asthenic cases.

It must, therefore, be recollected, that what is no positive evacuation, in a given case, may be a powerful one, in another. Barely emptying the stomach and intestines with Castor-oil, in a case of phlogistic Fever, might be no evacuation at all, as respects reduction; and even at the access of a moderate case of Nervous-fever, it might produce no material effect of this sort. But, in a low, irritable, and sinking

case of Cynanche-maligna, of typhoid Dysentery, of Jail-fever, or Spotted-fever, and even in many cases of Yellow-fever, or in the stage of exhaustion, when it is very great, of any disease, a dose of Magnesia, or even a single *enema*, has been known to reduce, irretrievably, a previously hopeful case. In such instances, the evacuation of sweating, though not ordinarily capable of producing any material reduction, might destroy life.

A conscientious physician will never treat a *serious* disease, without employing *efficient* agents; but he will, by no means, employ them, without having some *specific* and useful end in view, any more than he will amuse his patient with *placebos*; and unless his notions are definite, and he is acquainted, not only with all the known possible evil, as well as good, which may result from his means, he is an unsafe practitioner. Were precisely the same effects to be derived from vomiting and purging, in asthenic diseases, as in sthenic, what need would there be of any discrimination in the *choice* of articles? I believe it will not be pretended, that every emetic and cathartic article is equally well adapted to every case, in which vomiting and purging may be proper.

As I have observed above, the true principles upon which, the successful treatment and cure of asthenic diseases, in reality, depend, are counteraction and support. For the first of these purposes, to a certain

extent, it is usually expedient, and even necessary, to employ some evacuating agents; but those articles, which will evacuate the least, and consequently reduce the least, and, at the same time, counteract in the greatest and safest degree, are to be scrupulously selected.

There is still another principle to be taken into consideration, which ought materially to affect our choice. It is well known, that the degree and quantity of the evacuation, produced by different articles, is almost as various as the individual articles employed; but it does not seem to be equally understood, that the *quality* of the action, in other respects, is equally various. Thus most of the agents, that effectually *counteract* sthenic diseases, do, in fact, *coincide* with, and aggravate the asthenic; and, on the other hand, a great proportion of those which are most efficacious in the asthenic, would, in the same manner, *concur* with, and increase those that are sthenic.

In the early stages of sthenic diseases, reduction and counteraction should always be made to coincide; but counteraction only is necessary in the latter stage. On the contrary, in the early stages of *regular* asthenic diseases, nothing but counteraction is to be attempted; while in the latter stage, counteraction and support must be combined. In most cases, asthenic diseases must be counteracted and changed, to

a certain extent, as a *necessary previous preparation* to support.

Want of success in the treatment of sthenic diseases, when it is the fault of the physician, is usually owing to deficiency of reduction, by depletion and evacuations, or to deficiency in the promptitude and speed of effecting it, or to an injudicious choice of agents for its accomplishment, which, though they may reduce excessive action, at the same time have but little tendency to *change*, or counteract, that morbid state of the system, upon which such action depends. In acute asthenic diseases, similar want of success is almost entirely owing to the employment of agents, that reduce strength, and coincide with the disease, without *preparing* for support, and to a deficiency of prompt, regular, and adequate support.

ESSAY XIV.

MEDICINES, WHICH DO NOT COUNTERACT DISEASED ACTION, COINCIDE WITH IT.

THE subject of *the concurrence of the action of medicine with the existing morbid action*, is in a great measure new, and has not hitherto attracted that attention, which its high importance demands. To do it any kind of justice, would require a much longer dissertation, than the plan of this work admits.

It is so generally agreed among medical men, as to be taken for granted in all these Essays, that there is a vital power, a living principle, which pervades every animated body, and that it is regulated by very different laws from the mere chemical and other philosophical attractions and repulsions, by which inanimate matter is governed. When any of the functions are performed irregularly, or imperfectly, there is a derangement in the operations of this vital principle, which may be so great, as to end in its extinction. The irregularity and imperfection, with which the functions are performed, according to their seve-

ral associations, constitute the various diseases, or combinations of morbid action, to which man is subject. The peculiar lesion of the solids and fluids, which is the cause of the derangement of their functions, though it has been the source of innumerable hypotheses, for the most part, is entirely beyond our investigation.

Disease consists rather in the *quality*, than in the *quantity* of morbid action; yet, this quality may be *changed*, and the quantity *increased* or *diminished*, to every possible variation.

A *complete* knowledge of the agents that *counteract*, in contradistinction from those which *coincide*, or *concur*, with each particular diseased action, and *skill* to apply them, combined with accurate information of the various means which are necessary to *reduce* excessive action, and also of those which *excite* and *support* the powers of life, would constitute a perfect practical physician.

All theory, therefore, which diverts the attention from these points, whether derived from the false hypothesis, of direct and indirect debility, of Brown, or the systems of Boerhaave or Cullen, must prove fallacious, when put to the test of experience, and, as far as it respects practice, must be attended with destructive consequences.

"Quid Scammoniæ radix ad purgandum, quid Aristolochiæ ad morsus Serpentum possit, video;

quod satis est; cur possit, nescio." (*Cicero de Divinatione, Lib. II.*)

The most pernicious theories are those, which attribute disease *exclusively*, either to increased action on the one hand, or diminished action on the other; or that consider all fevers to be the same in *kind*, and all inflammations to be the same in *kind*, and consequently, that the treatment must be the same in *kind*, and only vary in *degree;* as if all maladies were to be cured by depleting or exciting remedies. Even the greatest depletion, when successful, cures as much by the *change* of *morbid* action, which it effects, as by the *reduction* of *excessive* action. Nor do emetics, cathartics, diaphoretics, &c. produce their effects by their evacuations merely, or by removing morbific matter, but by acting as powerful counteragents. A patient is not to be stimulated into health, nor depleted into health. The quality, not the mere quantity, of morbid action, is to be changed, in the vast majority of cases.

For a general rule, as has been before remarked, *sthenic* diseases require *reduction* in the first place; afterwards the treatment consists in the administration of a peculiar set of agents, which have a tendency to remove or *change* the remaining morbid action. On the other hand, *asthenic* diseases usually demand an effort to change the morbid action, in the *first* place; afterwards, the main object is to afford proper *support.*

Every one knows the immediate effect of Alcohol and other stimulants, in *increasing* morbid action, and *concurring* with it, in Synocha; but very few have accurately noticed the equally deleterious consequences of *refrigerants*, and *active* reducing emetics and cathartics, in Typhus. Indeed, the injury arising from these debilitating and irritating articles, is not always obvious, *at first view*; in the lighter cases, especially those attended with *moderate* torpor, and in mild Fevers of the sub-putrid type, they sometimes counteract, for a short space of time, and thus produce *present* relief; but their pernicious effects are usually seen, in the production of irritability, or exhaustion, in a greater or less degree, particularly at a *critical period*. Even Calomel, though the most certain agent, during the first stages of regular Fevers, in *changing* diseased action, if continued beyond the first week, or even after the semi-critical change is produced (I am by no means speaking of chronical or local affections) is apt to *coincide* with, and increase the general debility and irritability, though not, by any means, in so great a degree as Tartar-emetic.

It would be well, *if Antimonials were prohibited*, in every typhoid disease. Not, but that when administered by a careful hand, they may be *occasionally* serviceable, in clearing the alimentary canal, and thus *prepare* the system for tonics; and that they are some-

times even successfully employed as counter-agents, in the preparatory stage of hot Typhus, of the sub-putrid type; yet, as their alterative effects can always be accomplished by much *safer means*, by more appropriate counter-agents, they are *unnecessary*, and from their debilitating and irritating properties, are *liable* to produce the most fatal consequences, in *coinciding* with the disease. Antimonials, Nitre, Cream of Tartar, effervescing mixtures, and the other refrigerant salts, vegetable acids, cold water, or similar articles, are *indispensable* in *Synocha;* and though of more doubtful efficacy, when cautiously employed, *may* occasionally answer, or at least do much less mischief, in the early stages of *Synochus;* (which is however in most instances of the sub-putrid type) but they are always *hazardous*, in the *nervous Fevers* of the present day, which are of the nervous type, and asthenic diathesis, *from the very access;* and if used for any considerable time, in *efficient doses*, are *uniformly pernicious.* Irritability of the stomach and bowels, inordinate and unmanageable *secretion of bile*, extreme anxiety about the præcordia, hæmorrhage, *black* tongue and teeth, coma, subsultus, sudden and unexpected exhaustion of the vital powers, with colliquative perspiration and diarrhœa, and the whole train of symptoms, belonging to extreme, irregular, and malignant diseases, are, at any time, *liable* to supervene in those cases, which

might otherwise have proved mild, from the injudicious use of these very exceptionable articles. They almost uniformly *increase typhoid heat* and *thirst*, and frequently, produce *dryness* of skin; but where the opposite symptoms prevail, they aggravate, and concur with, the *morbid* coldness and perspiration.

Yet, those practitioners, who mistake the heat of *irritation*, or *passive inflammation*, for *active inflammation*, though the pulse may be from a hundred and twenty, to a hundred and fifty, in a minute, consider this *heat* as a reason for continuing their use, and pursue the course, till all the most dangerous and unmanageable symptoms are produced. While, such cases often require only a few doses of Dover's powder, or Volatile-alkali and Camphor, and sometimes, especially in the milder, nothing more than mere Thoroughwort, or Hops, would have been sufficient to overcome the *irritation*, and prevent all those mischievous consequences.

In typhoid Dysentery, and Pneumonia, such practice has proved fatal to thousands; and within the last fifteen years, in conjunction with venesection, it has unquestionably destroyed more lives, than perished by the sword, during the revolutionary war.

But, in the *lowest* irritable typhoid diseases, *one dose* of neutral salts, or effervescing mixture, or the smallest quantities of lemonade, tamarinds, roasted

apples, currant-gelly, and other vegetable acids, or, a few spoonfuls of balm-tea, or cold water, are positive *atonics*, and have frequently deranged the stomach and bowels so much, in a few hours, as to require days to restore their proper tone, and in many instances, the injury has been irreparable. In such cases, articles, which are usually stimulant, are liable to become atonics. Thus, where Alcohol, Cantharides, Capsicum, &c. are *highly* indicated, Wine, Cinchona, &c. may be reducing agents.

There is nothing new in the principle, that vegetable acids, neutral salts, and antimonials, are injurious, particularly in the stage of exhaustion, in nervous Fevers. Every physician must have often found it necessary to abstract them in the progress of the disease; and every physician also knows, that even the *mild stimulants*, in certain circumstances, become *atonics*, and *positively reducing* agents. All likewise agree, that in particular states of the system, they greatly debilitate, and if persisted in, will ultimately destroy the tone of the stomach, and exhaust the powers of life. But, notwithstanding a knowledge of these facts, there exists a strange inconsistency, in indulging in their use, and even in prescribing them, during the preparatory stage.

With many, there seems to be a kind of magic in the *word* FEVER, which prevents their viewing it in any other point of light, than associating with it the ideas

of phlogistic heat, and sthenic action, and consequently, with depletion, refrigerants, and every kind of reduction of vital power.

It should never be forgotten, that a pure nervous Fever, such as that of the present day, though it is attended with more or less *irritation* on the one hand, or torpor on the other, has nothing like actual phlogistic action in any stage. The *preparatory* stage, of consequence, is to be managed by means *entirely different* from those, which are indicated in *Synocha*, or even what may possibly answer in *Synochus*. Indeed there does not exist, properly speaking, any such stage as the preparatory in Synocha, unless the whole disease is considered as such, when Typhus, after the first week, happens to supervene. In this case, the treatment suitable to Synocha is sufficient preparation, for immediately entering on the tonic and supporting course. In an actively inflammatory Fever, every remedy is *immediately* adapted both to the *lessening* and *counteraction* of morbid excitement, or what Cullen calls the violence of re-action; and when this is accomplished, the primary disease is cured. When, instead of health, another malady supervenes, this is a new disease, and it requires treatment accordingly; and when this disease is Typhus, the indications are entirely different from those of Synocha.

If we fail of producing a resolution, and subduing

regular Typhus, in our first attempt, we have, in addition to the *direct* process of counteraction, to support the patient by a course of tonics and excitants; for which, however, a *previous preparation* is generally necessary, before they can be made to produce any beneficial effects. We occasionally meet with cases where, from the attending circumstances, we cannot use Mercurials at all during the stage of irritation, and yet the sub-critical change *must* be produced, before the system is *fitted* for the reception of tonics. In such instances, the Materia-medica is sufficiently extensive to furnish us with ample means for this preparatory process, without resorting to such hazardous, or to say the least, doubtful articles, as Antimonials, neutral salts, vegetable acids, &c.

Where timidity, prejudice, or any real or imaginary obstacle prevents the use of Calomel, Thoroughwort, Ipecacuanha, Spirit of Nitrous-æther, Nitric-acid, Hoffman's anodyne, Clutton's febrifuge, &c. are to be employed as preparatives. Sulphate of Zinc, Ipecacuanha, and Sanguinaria, as emetics, are free from many of the objections against Tartar-emetic. Cathartics are so numerous, that there is no need of using neutral salts, on the one hand, nor drastics, on the other. Why then have recourse to articles of such doubtful or injurious tendency?

The universality of a peculiar method of practice, and the fact that many, even a large majority of the

common cases, *ultimately* recover, notwithstanding the most absurd treatment, such as the free use of Antimonials and Nitre, even when the skin is moist and cool, and where there exists not a single symptom, which indicates the employment of refrigerant and reducing agents; these circumstances are no more of an argument in favour of injudicious practice, than the fact, that ninety-nine out of a hundred, in parturition, ultimately recovered, under the ancient preposterous and cruel management. This mode of reasoning goes to the prevention of any kind of improvement.

How often is it necessary to repeat, that a good physician does not merely attend to the present symptoms, and to the events of the succeeding twenty-four hours, but that he constantly has his eye directed to the crisis, to the period of convalescence, and to the *ultimate* effects of his practice?

But if there are medicines sufficient, without those questionable articles, they who indulge their patients in Nervous-fever, with the free use of Cream of Tartar, Tamarinds, lemonade, apple-water, neutral mixtures, vegetable gellies and sweet-meats, fresh summer and tropical fruits, roasted apples, &c. may, at first view, be inclined to think, that if these articles are prohibited, they are confined within narrow limits, and have very few resources left, for the supply of pleasant diluting drink, and nourishment. This, however, is a great mistake.

Decoctions of bread, rice, barley, slippery elm, linseed, Iceland-moss, &c. gruel, tea, coffee, preparations of arrow-root, sago, salep, tapioca, and isinglass, calf's-foot gelly, beef-tea, milk-porridge, broth, and similar articles, are sufficient for the common purpose of food, and drink. Infusions of Chamomile, Hops, Mint, Penny-royal, Rosemary, Sage, and similar aromatic plants are also proper. In addition to this extensive catalogue, we have sulphuric and muriatic acid, bottled Cider, Porter, Wine, and Alcohol, which still remain for the latter stages. In a *pure* Typhus of either type, the only articles belonging to the class of refrigerants, as they are usually called, which I would retain, are spirit of Nitrous-æther, Hoffman's anodyne, Clutton's febrifuge, and Oranges. These are the least exceptionable; nevertheless, they are to be employed with great caution, are *better* dispensed with altogether in Typhus-mitior, where Calomel and Opium, with Ipecacuanha, *can* be used, and are utterly inadmissible in the *lowest* and most *irritable* cases. They are less objectionable in the early stages in Fevers of the *putrid*, than of the *nervous* type; and, even in the nervous type, are less injurious in the torpid, than in the irritable cases. Perhaps they are never useful, except in those hot cases, which are relieved by cool drinks and cold affusion.

However, neither these, nor any other articles, are to be used, from any loose notions of their being febri-

fuges, unless particular symptoms demand them. When the skin is *cool* and *moist*, they *always* injure. Dover's powder, or Ipecacuanha in other forms, *does mischief* in such cases. In *low* Typhus, and many of the passive Phlegmasiæ, this article is nearly as exceptionable as Antimony, and the system must be *excited*, before even Calomel can be employed to advantage.

If time admitted, this would be a proper place, to notice the debilitating and hazardous effects of *excessive sweating*. Moderate diaphoresis is very properly excited, and kept up, as a *test* of the *effect* of *deobstruents* and *alteratives;* but, the evacuation from the skin has probably, in typhoid diseases, but little more effect of *itself* than salivation, in performing a cure. *Profuse* sweating, from its long continuance, *weakens* and *exhausts* the vital powers, more than most other operations.

Antimonial emetics, and drastic cathartics, and refrigerants, are however, of all things, the most commonly prescribed, at the present day, in the beginning of fevers, whether nervous or putrid, sthenic or asthenic, irritable or torpid, under the vague idea of their being febrifuges; and they usually make an *early impression*, which has an influence on the character of fevers, through their *whole* subsequent progress.

During the prevalence of an epidemic, there are often days or weeks of predisposition, previous to the attack. In this intermediate state, between health

and disease, every unusual exertion of body or mind, any error of the *non-naturals*, will often induce disease; and none more certainly, than *violent* emetics and cathartics. In this state, discriminating people are sometimes very reluctant in applying to a physician; as those, who fall into his hands, are almost invariably seized with the prevailing epidemic. *The danger from the physician*, arises from his free use of drastic emetics and cathartics, and perhaps venesection. These articles, instead of *counteracting* the morbid disposition, *concur* with it, and the spark, which perhaps might have extinguished itself, is thus kindled into a flame. Who, on reviewing his own practice, cannot recollect numerous cases of this kind?

Most physicians are not aware of the great uncertainty in the operation of emetics. They rarely remain with the patient during the administration, and generally obtain very imperfect information of the effects. We are told, that an emetic has operated three or four times, if it has produced only as many retchings; when it is the number of *paroxysms* of vomiting, which we are inquiring after. There is no question, that active emetics and cathartics, and also warm bathing, cold affusion, sweating, &c. &c. occasionally suspend febrile action; but for this purpose, we can place but little dependence upon them, and it is extremely difficult to give any definite rules for their use. If they are efficient in their operation, their effects are,

in general, beyond our immediate control. We cannot say, go thus far and no farther. The immediate consequences are uncertain or unmanageable; and the remote effects are commonly injurious. *I have seen few, very few, cases of extreme irritability of the stomach and bowels, or of troublesome secretions of bile, in which I could not satisfactorily trace these symptoms to emetics and drastic cathartics.* Yet, this extra-secretion of bile is considered as indicating farther evacuation!

Of two physicians practising side by side in the same epidemic, one will meet with none but bilious irritable cases, while the other finds no uncommon disturbance in the alimentary canal. No other information would be necessary, to ascertain which was in the habit of using *emetics*, and especially antimonials.

Whoever is in much pain and distress, is extremely anxious to have some efficient course entered upon. Any *strong impression* will satisfy his impatience at least; and, in many instances, it will produce a temporary alleviation. The first strong impression, most commonly, determines the *future character* of the disease. When it does not immediately break it up, it influences the subsequent critical periods, and the ultimate result. The unfavourable effects are often palliated by sufficient skill, but are rarely removed entirely, except with the disease itself. The greater

half of the art of managing fevers consists in making a proper beginning, and dexterously treating the preparatory stage.

Si nous sommes dans l'erreur ou dans l'ignorance, au point du départ, nous ne tarderons pas à nous égarer dans le chemin.
St. Pierre.

The false notions of morbific matter, at this very day, have much influence in popular practice; and the very means for its removal, produce diseased secretions, which are considered as ocular demonstration of its previous existence. In no disease, is there more deception on this subject, than in asthenic or typhoid Dysentery. Almost any cathartic, during its operation, evacuates natural fæces, and for a time, appears to act as a counter-agent; but the tormina, tenesmus, and morbid discharges, in general, return with redoubled violence, in consequence of the increased debility by purging, more especially, where the evacuation is not speedily checked by Opium. Yet, farther purging is fallaciously considered to be indicated. The truth is, the morbid state of the intestinal canal, which is the cause of the symptoms peculiar to this disease, is not to be removed, unless accidentally, by evacuations. Purging or vomiting is no more serviceable in this disease than in any other; indeed, it is commonly more exhausting than in most other febrile complaints. If the febrile symptoms are such, as in any *other* disease would require Calomel, Ipe-

cacuanha, and other alteratives and diaphoretics, or even emetics or cathartics, or stimulants and tonics, *by all means*, they should be employed; not however, *at the same time*, forgetting to keep the system constantly and *uniformly*, from the *access* to the *termination* of the disease, under the operation of so much Opium, as is *sufficient* to relieve the pain and local irritation. Opium approximates much nearer to being a specific in typhoid Dysentery, and if possible, is more *certain* in its curative effects, than Cinchona in Intermittents, or Mercury in Syphilis. All these articles require *suitable auxiliaries*, although their particular employment is the *main* indication, in the diseases to which they are respectively adapted.

I cannot dismiss the subject of Dysentery without remarking, that our nosology of this disease is very defective. It sometimes exists as a *primary* affection, and the Fever is only symptomatic; at others, the Fever is the *primary* disease, and the Dysentery is only an accidental symptom. Most probably, in every case where the Fever is merely *symptomatic*, Calomel injures, and coincides with the morbid action, and in common with other cathartics, prolongs the disease. It is *impossible* to practise successfully in Dysentery, without the aid of Opium; but for any other single article, which is usually employed, we could find a tolerable substitute.

Princeps posui auxilium in succo Papaveris, hac

divina, manuque experta administrata, potente Medicina, qua in Dysenteria multisque aliis malis nullo carerem prætio. Quando aliquis datur morbus, quo Opium citra metum atque circumspiciente audacia porrigere potes, id certissime in Dysenteria obtinet. (Schmidtmann. Berlin Edition 1819, Art. Dys.)

It is a curious fact, that since the prevalence of the asthenic diathesis, most physicians complain of the *adulteration*, or uncertainty, of Tartar-emetic, and that they are, in many instances, unable to produce *full vomiting*, without administering it in *enormous doses*. The real truth is, there is no necessity of supposing a deterioration in the article, to account for the fact. The difficulty is merely owing to a *general asthenic, torpid state* of the system, which places the stomach *below* the reach of such a debilitating article. This is one of the first circumstances, which was noticed by the able physicians in the County of Hartford, of a *change* of *diathesis*, previous to the appearance of the Spotted-fever.

It may not be amiss to remark farther, that several other accustomed remedies also completely failed. The usual diseases of *utero-gestation* failed of being palliated by venesection. Nor did this remedy produce its accustomed effects in other maladies. Nitre and the *saline* cathartics disappointed their expectations. In a word, the system appeared to have *lost its excitability* for many of the common medici-

nal agents, *particularly* those of the *refrigerant* and *reducing* class.

On the other hand, minute doses *sometimes* produce unconquerable irritation. One or other of these *extremes* will follow, from the use of such reducing agents in typhoid diseases, according to the prevalence of irritability or torpor. However, moderately torpid cases, if they are not immediately exhausted by such agents, are liable to be converted into diseases of extreme irritation. Chronic diseases are much more asthenic than formerly. Cream of Tartar is *now* an uncertain diuretic; and few Dropsies can be cured without Cantharides, Elaterium, or other stimulating articles.

Irritability is sometimes so great, that *ten* minims of tincture of Cantharides produce strangury, and even Dysentery. In other cases, there is such an excess of *torpor*, that an ounce of the strongest tincture may be given, in twenty-four hours, with good effect. A *discerning* physician, however, *can* distinguish these cases, with *sufficient* accuracy, previous to making trial of the medicine. Such opposite effects are *not* a matter of chance and uncertainty.

This general state, which causes medicines to operate so differently, from the manner they did twenty years ago, or what Sydenham would call *epidemic constitution*, is the asthenic diathesis, which more or less influences every person, whether in sickness or

health, and continues, in our section of the Country at least, *to this very hour.*

It is commonly supposed, that nausea and retching, in the beginning and secondary stages of Fever, indicate vomiting. This, as respects Synocha, is frequently true; but it is *absolutely* false, as a general principle, in Typhus. Where the Calomel practice has been properly employed, this symptom rarely occurs; and when it does occur, it is usually aggravated, rather than relieved, by emetics. Epispastics upon the epigastric region, full and *regularly* repeated doses of Opium, assisted by Ammonia, Capsicum, and Alcohol, will be found to be nearly infallible.

Though in regular Fever, where Calomel is properly used, vomiting is rarely indicated, and though I have no doubt, that ten emetics are administered, where one is really needed, yet, I must not here be understood, as *censuring* the use of *light emetics*, in any stage, if there is not much exhaustion, where circumstances require them to obviate *particular symptoms*, any more than I would condemn *mild cathartics*, because the *drastic* and *refrigerant* purgatives are so much abused. White-vitriol, Sanguinaria, and other *acrid* emetics, are found to relieve urgent symptoms, particularly in torpid cases of Pneumonia-typhodes, and occasionally in Typhus. In the hands of the skilful, they are among the most important articles of the Materia-medica.

For instance—it sometimes happens, towards the close of mild febrile diseases, that the usual supporting remedies appear to be worn out, and cease to produce their customary effect. A moderate torpor or want of action, without much exhaustion, seems to prevail. In this kind of negative, passive state, moderate emetics of Sanguinaria, Sulphate of Zinc, or Ipecacuanha, often rouse the latent excitability, and bring the system again within the reach of tonics. Moderate purging with Calomel, will often answer the same purpose. It is well to notice this circumstance, as a timely emetic or cathartic, may prevent the excessive use of the highly exciting articles, which would otherwise be required to bring the languid system into proper action. In these cases, torpor exists with *latent* excitability; but when torpor is attended with *exhausted* excitability, vomiting or purging is hazardous, and frequently fatal.

I am fully aware, that the subject of this dissertation will be liable to excite more surprise, than any thing, which is contained in these Essays. It may be considered, as a repetition and summary of most of the important doctrines, which are taught in this volume. They, who follow a mere routine, without taking pains to discriminate the symptoms *natural* to the disease, from those which are *produced* or *aggravated* by the treatment, who believe in the indolent doctrine of the *unity* of disease, and imagine, that the names Fever

or Inflammation, are sufficient, of themselves, to *authorize* a *reducing course*, without any regard to *pulse*, *stage*, *type*, or *diathesis*, or to the preponderance of irritability or torpor, will be astonished at these free remarks on the use, or rather abuse, of antimonials, neutral salts, vegetable acids, and cold water. Even my friends, the disciples of Cullen, though, in most respects, the very ablest body of physicians, may still cling to their ancient hypothesis, that every Fever, during the stage of irritation, is necessarily phlogistic, and will, with the greatest difficulty, be prevailed on to acknowledge, that their favourite Antimony has no real febrifuge powers, in a *genuine* Nervous-fever. As men of reflection, they must recollect, that they received their education, during the prevalence of a diathesis, *totally* different from that of the present day. Twenty years ago, Nervous-fever was scarcely known in New-England, and Pneumonia-typhodes was forgotten. I am confident, however, that the strictures on Antimony will hold true, as long as the present asthenic diathesis so *universally* prevails, and we are so liable to meet with unmanageable *irritability* in the alimentary canal. Perhaps three fourths of the fatal cases of simple Fever, when the patient dies within fourteen days, are attended with tumid abdomen, hæmorrhages from the bowels, or even sphacelation, the consequences of diarrhœa, or immoderate purging, or refrigerants, and other atonics. Cold wa-

ter, I grant, is the least exceptionable of the whole class of what are called refrigerants; yet, as its use is very questionable, when it is tried, it should be in small doses, and with much caution. For a general rule, tepid aromatic drinks are *much* to be preferred. When liquids are taken cool, they ought to be qualified with the mineral acids. These acids appear peculiarly adapted to *hot* Typhus.

I must be pardoned for repeating, that *the articles* to which I object, *in general, do not quench the thirst, diminish the heat, or produce diaphoresis*, and *are not febrifuges*, during the stage of irritation of Typhus-mitior, nor in fevers attended with *passive* inflammation; and during the stage of *exhaustion*, they aggravate and *coincide* with every urgent symptom. Pursue the refrigerant course, and the stomach will become so *irritable*, that a *spoonful* of *balm-tea*, or cold water, will be instantly rejected; when a *single pill* of *Opium*, or spoonful or two of *Brandy and water*, or a few grains of Volatile-alkali and Camphor, will calm and quiet the whole disturbance; the heat will be *lessened*, and a *mild* diaphoresis supervene.

It is all in vain to object, that this is carrying regimen to a scrupulous and useless nicety. When the beam is accurately balanced, a feather will turn the scale. One spoonful of cold water, improperly applied, or even of balm-tea, in certain stages of the Yellow-fever, *renews* the irritation of the stomach, *prevents* the use

and effect of proper remedies, and *decides* the event of the case. If, on the other hand, in a different description of diseases, I have any capacity of judging, I have often seen a little Magnesia, or even a single enema, in so desperate a case, that all important means seemed to fail, give a new turn to the symptoms, and preserve the life of the patient. A learned professor, in my hearing, compared such small things, to the linchpins of a carriage, without which, the wheels would be more dangerous than useful.

Though this Essay relates to the effect of medicines in typhoid diseases, it will nevertheless furnish many useful suggestions, in the treatment of asthenic, sub-acute, and chronical affections, and teach the necessity of changing morbid action, in these cases, with articles which have the *least* tendency to waste the vital powers; or by other means, than *perpetual* vomiting and purging. In these chronic cases, however, a much greater latitude is allowed in diet and regimen; and in many instances, especially where the patient is not dyspeptic, and even in some cases of indigestion, vegetable acids, ripe summer and tropical fruits, are highly beneficial, and there is always sufficient time to make trial, even of suspicious articles; whereas, in acute diseases, every moment is too precious to be wasted in *doubtful* trials, which *may* prove *hazardous* experiments. I have even found *iced* water, in small doses, a very effectual tonic, in

some chronic cases attended with debility of the stomach. I will observe once for all, it is often extremely difficult to ascertain the regimen, which is best suited to individual chronic cases, until it is put to the *test* of experience.

The subject of coinciding and counteracting agents, when rightly understood, would prevent much of the inconvenience, which results from the careless use of *substitutes.* Few cases of severe disease can be imagined, in which an *accurate* physician would prescribe one *efficient* article in the *stead* of another. In dropsy the water may often be evacuated, with nearly equal facility, by various diuretics. But it is an all-important consideration, to ascertain whether the *counteracting* effect, which is a sdesirable as the diuretic, is best promoted by Cream of Tartar, or Elaterium. In Pneumonia-typhodes, or Croup, if the evacuation of vomiting was alone indicated, Antimony *might* answer as well as Sanguinaria or Seneka. No one would dream of using Nitre and Antimony as diaphoretics, when Serpentaria, Volatile-alkali, and Camphor are required as exciting and supporting agents. Where the peculiar action of Aloes is indicated, neutral salts are obviously injurious. Not merely the *operative,* but the *counteracting* and *coinciding* effects, must always be considered, or it is an even chance, that every efficient article will become a poison.

Care should also be had, lest counter-agents, though they remove the disease, do not excite a new action, which is worse than the original complaint. This remark applies to every description of *heavy* practice. Counteraction itself may be carried too far. The burden of disease, and its known obstinacy and severity, must regulate the force and strength of the practice. Probably more cases of indigestion and visceral obstruction, arise from employing pills of drastic ingredients, to remove mere costiveness, than from every other cause. Before every family kept their box of pills, hepatic diseases were rare.

Under proper views of this subject, many alterative, counteracting agents, when *properly* managed, strictly speaking, neither stimulate nor reduce; they only *change* morbid action, or substitute one that is less exceptionable, than the original affection. Thus, in the preparatory stage of acute febrile diseases, Calomel and Opium, infusions of Eupatorium, Hops, or Serpentaria, Mustard or Wine-whey, Sanguinaria, Veratrum or Colchicum, are generally mere counter-agents, adapted to particular circumstances, and can scarcely be considered as stimulating or reducing agents, as respects excitement and support.

It is of *immense* consequence (I cannot enforce the subject too often) that acute diseases should be properly managed in their preparatory stage. They

who treat every fever as phlogistic *at first*, entirely misconceive the subject, and commit the grossest mistake. They build upon a false foundation, and though in the progress, they may rectify some of their errors, yet they produce but an unstable and shattered edifice, at the best.

Begin right—the way is plain, the progress easy, and the termination happy. In *Synocha*, a mistake is of *small* consequence, can be *soon* discovered, and is *easily* repaired. But, in moderate Typhus, and more particularly in the hot cases, or those of the sub-putrid type, and also in the moderately torpid, it is often difficult to be seen *before* the crisis, when it must *frequently* be fatal. The treatment proper for the *forming stage*, or the actual commencement of Typhus, could not *materially* aggravate a Synocha; and in *twelve* or *twenty-four* hours at farthest, the true course must be obvious. In low *irritable* Typhus, especially of the nervous type, and in every Fever, where the stage of re-action is very feeble, or absolutely wanting, a single powerful evacuation, whether by bleeding, vomiting, or purging, usually sinks the patient, and places him beyond the reach of any *subsequent* remedy.

The preceding strictures are not hasty remarks, nor sweeping generalizations, from a few insulated facts. From the ill effects of Tartar-emetic, in the epidemic Pneumonia of 1812, my attention was

turned to the operation of Antimonials. Since that time, I can truly assert, that I have never met with a serious disease, in which Tartar-emetic had been used to excite vomiting, without being able to trace obviously inconvenient, or pernicious effects. Nor have I known a case of its being used in alterative doses, where other articles, for the same purpose, might not have been substituted to advantage. If the edict against Antimony, which was formerly issued in France, were made during a general typhoid diathesis, it was one of the most salutary measures, that was ever adopted by any government. There is some unobjectionable succedaneum for Antimony, in every asthenic disease, in which its emetic, cathartic, diaphoretic, expectorant, or deobstruent powers, are supposed to be indicated.

During the same period, in which my attention has been turned to Antimony, I have closely watched the counteracting and coinciding effects of medicines in general, and have particularly endeavoured to trace the *peculiar* and *original* symptoms of disease, from the *factitious* symptoms resulting from improper treatment. In the course of this investigation, many more opportunities, than might have been expected, have occurred, for viewing the *natural* progress of disease, in which, either no medicine, or so little, had been employed, as to enable me to ascertain, what would be the course and termination of

Fevers, when *unassisted* by art. I cannot but decide, that any person of sufficient capacity to make the necessary inquiries and observations, would fully agree, as to the general correctness of my conclusions, provided, with the same opportunities, he would give the same pains and attention to the subject.

ESSAY XV.

CONCLUSION.

CALOMEL and OPIUM, in acute febrile diseases, are of greater service, than all the other articles of the Materia-medica. There is no good physician, in full practice, who does not employ them daily. Whoever will be at the pains of following the directions contained in these Essays, and in *simple* Fever, confine the use of Calomel, to the preparatory stage only, and in inflammations, abstract it as the local symptoms yield, and in the proper stage, will so manage Opium, as to keep the system *uniformly* under its action, will be much less frequently disappointed in the effects of these agents, than in those of any other important medicines. When their *combined* effect is indicated, their value is much increased, by an accurate acquaintance with the method of *promptly* following it, with an *efficient* supporting course. Without attending to this important point, there is no certainty of ultimate success. Like every other interesting subject, these articles have been the occasion of much clamour and

abuse, excited by ignorant, indolent, obstinate, skeptical, credulous, time-serving, unprincipled practitioners, whose only means of obtaining employment is to reduce, in the general estimation of the public, every man of talents and integrity, to their own common level.

I know of but one situation, in which the public at large, can possibly appreciate the merits of different physicians. During the prevalence of a severe and malignant epidemic, of original, not factitious, low, and sinking cases, opposite modes of practice have often been put to a fair and decided trial. Without such an occurrence, no accurate judgment can be formed, by those who are not themselves physicians. A practitioner may lose every sporadic case of original low Typhus, which he meets with for years, and yet by a little management, such as giving it a *false* name, or pretending, that a *new disease* has supervened, retain his reputation. But the comparative success, in a particular severe epidemic, in which the business is *equally* shared, is obvious to the whole world. I know many districts, in which, if the physician, instead of an alterative and supporting plan, should rely upon bleeding, drastic emetics, and cathartics, and a refrigerant course, he would lose his business in one week.

Nothing is more common than to censure modes of practice, which are imperfectly understood: and

the misfortune is, that they, who are so ready to censure, will never take the pains which are necessary, in order to be undeceived. What has ever caused so much clamour, as the use of Opium, Alcohol, and other diffusible excitants in Fevers? The cry of indiscriminately stimulating practice, is echoed from one end of the continent to the other.

The supporting *part* of the practice recommended in these Essays, in asthenic Fevers, except what we derive from a more extensive Materia-medica, is nothing new, being in fact as ancient as Hippocrates; and it has received the sanction of all the most eminent physicians, in every successive age, down to the present time. Whoever considers it as injurious in cases of exhaustion, comes too late with his discovery. Notwithstanding all the clamour, which has been raised, within the last fifteen years, by the advocates of indiscriminate depletion, we have the testimony of the two most distinguished of their number, Johnson and Welsh, that their unwearied exertions have hitherto made but a handful of proselytes; the former mentioning only three gentlemen beside himself in India, and the latter confessing, that their method is still "*viewed with rooted aversion*" in Great-Britain, and "*has still a large majority of the most eminent medical practitioners decidedly opposed to it.*" Armstrong also candidly admits, that his system of depletion is inadmissible in the great body of

cases in London; and he acknowledges that he does not know, what practice will cure a severe case of genuine Nervous-fever; for which he has, in some way or other, unaccountably been complimented, as if describing it the first time, because he has given it a *new name*, deduced from his own theoretical notions. What a miserable guide must this author be, to a New-England student, who scarcely ever meets with any other simple Fever!

From the latest journals, it appears, that notwithstanding all the noise and clamour of the modern phlebotomists, the London physicians do not adopt their plan; and for this good reason, that their diseases are clearly of the asthenic diathesis.

The most false assertions, that the supporting practice in question, tends to produce intemperance, are constantly and repeatedly made; though every person, who is acquainted with the subject knows, that however hazardous the habitual employment of the diffusible stimulants may be in *chronic* diseases, there is no fact better ascertained, than that for the *short time*, in which they are necessary in the stage of exhaustion in low *acute* diseases, they *never* produce an improper attachment; but, on the contrary, are much more likely to occasion a subsequent disgust; the patient usually associating the idea of his sickness, suffering, and distress, with their use. Why then all this zeal among the antiphlogistic physicians of the

present day, in censuring this ancient and well established practice? Why all this bitterness, slander, and abuse, against the followers of Hippocrates, Celsus, Van-Swieten, Huxham, Cullen, Darwin, Fordyce, and the remaining host of the medical world? It can arise from no other source, than an endeavour to conceal and justify their own *indolence*, ignorance, and incapacity. Regardless of the *remote* consequences to the constitutions of their patients, and even of the immediate death, which occasionally follows their rashness, they will not make the *exertion* necessary to acquire the knowledge of a safer, an infinitely *more successful* method, nor exercise the *attention* and *care*, which are essential to put it into effectual execution.

But, *ut ad me revertar.* With respect to the *peculiarities* of the plan recommended in these Essays, as they relate principally to the subject of the EARLY COUNTERACTION of disease, and rest entirely on *facts*, I would not object to as much discussion, and to as many strictures, as any one may choose; but, I shall consider myself as under no obligation to reply, or to contend with objections or theoretical cavils, until there shall have been *sufficient trial*, to afford an argument from *true* experience. I freely confess, however, that I cannot suppress my indignation, when I see the most fixed principles of medicine, the outlines of which have been well established for

ages, I mean *the proper method of support in the stage of exhaustion*, attempted to be set aside, by crude hypothesis, and partial and inadequate experience. Many methods of practice, like chemical and other philosophical facts, *do not admit* of dispute. The question, whether *peculiar* results can be produced, by a *certain* practice, under *particular* circumstances, can only be ascertained by *repeated* and *fair* trials. I therefore cannot *dispute* with any man, concerning the operation of Calomel, Opium, Alcohol, Cinchona, Antimony, neutral salts, and vegetable acids; but, I am ready to *demonstrate* to all candid persons, at the bed-side of my patients, the accuracy of my statements. A physician, who has practised in such a number of epidemics, and has not had the misfortune of losing more than half a dozen cases of simple Fever, has a right to set a high estimate on his peculiar method of treatment; nor ought he to deviate from his course, and venture into a new or unexplored field, for any plausible hypothetical reasoning. Failure in other men's hands, unless there is full assurance, that *all* the appropriate management has been employed, has not the least weight of evidence, in opposition to the accumulated proof of the most ample personal experience. However much the conclusion, may be at variance with the hypotheses, theories, or other preconceived notions of the most ingenious men, the *facts* must take the *pre-*

cedence, in defiance of all the modern doctrines, of the unity of Inflammation and Fever.

It is amusing to notice the apologies, which are so ingeniously fabricated, to account for the failure of an indiscriminately depleting, evacuating, and antiphlogistic method of treating asthenic and typhoid diseases—to observe the pains taken to account for the success of such articles as Colchicum and Oil of Turpentine, in various cases, which are *falsely supposed* to be actively inflammatory. To evade the fact, that the Phlegmasiæ are often asthenic, counteracting medicines, which do not debilitate, and others which are positive stimulants, are represented as operating upon specific principles; or on the contrary, distinctions are made where no difference exists. New terms, such as congestion, engorgement, and a multitude like them, are invented, to keep in countenance a theory, which is at variance with fact; when the recognition of the well known principle, that Inflammation is *often* asthenic, and that Fever *varies* from its access, both in diáthesis and type, would explain every difficulty.

For these several years past, three fourths of my medical *reading* has been of antiphlogistic writers; but I am much farther from being a convert, than when I begun. My *studies*, however, during the same time, have been principally directed to an object, which, as far as my information extends, has not been well investigated by any writer whatever, name-

ly, THE RESOLUTION OF DISEASES, that is, the means of suspending them at the very access, or at least, of mitigating their violence, and changing their character, so as to prevent the loss of time and property, together with the pain and hazard of protracted fits of sickness, slow convalescence, and impaired constitutions. This has led me to attend closely to the effects of venesection, emetics, cathartics, and diaphoretics, and to their *immediate* and more *remote* action, upon the various parts of the system labouring under disease. During this investigation, the medicinal properties of antimonials, neutral salts, and vegetable acids, and also, the effects of the common preparations of Mercury, Opium, Alcohol, and Cinchona, have been examined with the strictest scrutiny. The consequence has been, that I have succeeded beyond my most sanguine expectation, in speedily curing, or essentially mitigating, nearly the whole of the cases of acute disease, to which I have been *seasonably* called. In no one, have I been so uniformly fortunate, as in Dysentery. For this, I have gained very little reputation, and still less emolument. In the common Fever of children (febrile Remittent of some authors, incipient Marasmus of others) my success has been nearly as great. Croup is now rarely fatal; and Pneumonia-typhodes is divested of most of its errors. In Typhus, which has become the endemic of this section of our country, the result is detailed in the preceding pages.

I have had the strongest testimony in favour of the success, which has attended the adoption of my plan, by several able practitioners of this county. One gentleman assures me, that during the last season, 1822, he produced a speedy resolution in a hundred cases, and essentially mitigated a hundred more. Of two others, each succeeded in fifty. One of my friends considered, that he had unquestionably prevented the ravages of a severe epidemic, within his circle of practice. The last season, however, was more unfavourable for giving the plan a fair trial, than any which I ever knew; as a great proportion of the cases were anomalous, many having no visible stage of re-action. Some were very slow and insidious in their attacks, others were excessively rapid in their progress. One set of cases was marked with nearly as much *subsidentia*, as the Spotted-fever. Besides, many were complicated with Phrenitis, Cynanche, Pneumonia, Dysentery, or other passive local affections, so as to render it difficult to find a place for them in a system of nosology. Simple Fever, however, though of itself it is probably more under the control of medicine, than any other acute disease, from the circumstances usually attending it, causes much embarrassment to the physician. The stage for preparation is often nearly gone, before he sees the patient, the early symptoms are frequently so mild that the proper regimen is submitted to with

reluctance, or the case has already been tampered with very injudiciously, and the history of the disease from the patient, or attendants, for the most part, is very inaccurate. To make success any wise *certain*, the following maxim of Hippocrates is to be *strictly* observed. "The physician is not only to do *his* duty, but he must have the combined assistance of the patient, his attendants, and external circumstances."

As far as relates to the practice in America, Armstrong, with several other late writers, when he cautions against stimulants, during the stage of excitement or re-action, in regular Fevers, is merely beating the air, and repeating a slander, that never had any foundation in fact. No man follows such a course, nor was it ever in use *here*. It is universally agreed, that in all *regular* febrile diseases, the alimentary canal is to be properly cleared, the tongue moist, the skin and other emunctories free, heat moderated, local pain subdued, and in one word, a semi-critical change is to be produced, before the Bark, Wine, or Alcohol, can be serviceable, or even admissible, as supporting agents. If in any one point, all the practitioners of our country are united, it is in this. I never knew it violated.* Peculiar

* The Opium which is sometimes combined, in small quantities, with Calomel, Ipecacuanha, Antimony, &c. for producing diaphoresis, or for restraining vomiting or purging, and even Wine-whey,

attention is given to these subjects *with us* through every stage. There is, indeed, an *essential* difference in the manner of producing this kind of critical change, and in the method of practice, where the preparatory stage is wanting in *irregular* cases, as well as in the subsequent treatment.

If the physicians in Great-Britain have ever been in the practice of prescribing tonics, before the sub-critical change, or symptoms of exhaustion, begin to appear, there is some reason for their late writers running into the opposite extreme. But of this fact I have no evidence. Nor do I believe it. They are certainly the most respectable body of practitioners in the world.

The great art in the treatment of typhoid diseases, where we fail of a resolution of them within the first three days, *is to produce the semi-critical change speedily, safely, and with the least possible expenditure of the vital powers; and to follow this change with prompt, regular, and adequate support, through the remainder of the disease.* These subjects have been amply discussed in this work. It is presumed,

and other articles, *which tend to the surface*, are not to be considered as stimulants; as after depletion and evacuation, they are even admissible in many cases of Synocha. Many articles, however, which might be stimulants in Synocha, such as Colchicum, Veratrum, Lobelia-inflata, &c. if properly used in asthenic diseases, are mere counter-agents, and neither directly stimulate nor reduce.

that there is more precision in the rules for employing the necessary agents for *resolution*, and for *preparation* and *support*, than is to be found any where besides. But, study in the closet, is not alone sufficient to teach them to one, who is altogether deficient in practical observation, or who has long been biassed by favourite theories, and inveterate habits. The seaman derives much help from an accurate chart; but after all, it is more from the skill, dexterity, and firmness, which he has acquired in a long course of service, that he is enabled to navigate his ship in safety, through the dangers and perils of the ocean.

Of all kinds of labour, that, which the conveniences and necessities of civilized society have imposed on professional men, I mean *hard* study and *close* thinking, is most intolerable and irksome to the bulk of mankind. Few therefore are to be found, who are both able and willing to make themselves *complete* masters, and *diligent* members, of either of the learned professions. It would seem, that with many physicians, the lives of their patients were of little consequence, in comparison with the mental ease and indolence, in which they are so fond of indulging. A conscientious man, however, will always recollect, that the learned professions were not instituted for the *convenience* of their members, to furnish them, as a privileged order, with sinecure places, while

the rest of mankind are toiling to gain a subsistence, *in the sweat of their face.* The members of the medical faculty, who are honest, studious, and industrious, have probably the most laborious allotment, of any class of society. They must never expect to live in ease and indulgence, nor to obtain any very great share of honour or emolument from the world. A consciousness of the power and inclination, to do more benevolent acts than mankind in general, and the satisfaction, which ever attends relieving the wants and sufferings of humanity, must constitute their *chief* reward. Besides, a proper *early* discipline, and subsequent *habitual* exertion, cause scientific studies and professional pursuits, in the end, to become some of the most interesting sources of human happiness to the wise and good.

In this enlightened age, the physician, who is not acquainted with the powers of Calomel, in effecting a resolution of Fevers, or the powers and combined effects of Calomel and Opium, in safely changing such a great variety of diseased actions, or of the powers of Opium, Alcohol, Cinchona, Capsicum, Mineral-Solution, Cantharides, Turpentine, &c. in exciting and supporting the system, or of the necessity of observing regularity in the *time* and *manner* of their administration, has still the better half of his profession to learn. It is a kind of miracle for any patient, affected with an *original*, low and sinking

or malignant disease, to escape with his life out of such hands. Without an accurate knowledge of the subjects of counteracting and coinciding agents, and of pulse, stage, type, crisis, temperament, and diathesis, all practice is empirical, and no one can be a *safe* physician. Whoever professes the healing art, and is ignorant of these all-important subjects, is an impostor, a madman, a licensed murderer, who has lost sight of his accountability to his employers, to his conscience, and to his God. They who *will not* make themselves masters of these branches of their profession, should be prevented by the rigorous interposition of the law, from imposing themselves on the public as physicians. They who *cannot* acquire them,

Medicos esse,
Non homines, non Di, non concessere columnæ.

END OF PART I.

PART II.

ESSAYS

ON

FEVERS,

AND

OTHER MEDICAL SUBJECTS.

BY WILLIAM TULLY, M.D.

"The word INFLAMMATION, comprehending diseases of very different natures and terminations, has been a source of great mistakes in the practice of Physic. Does any physician now think of having recourse to the lancet, to cure the INFLAMMATION of the fauces in Scarlet-Fever, or what is called Putrid-sore-throat? Are there not, likewise, many instances of erysipelatous and membranous INFLAMMATION, where bleeding is pernicious?"

James Carmichael Smith.

THE Essays on the Yellow-Fever of Middletown, and Chatham, with the Cases, were read, by appointment, to the President and Fellows of the CONNECTICUT MEDICAL SOCIETY, at their Annual Convention, at the Medical College in New-Haven, May 8 and 9, 1822.

ESSAY I.

HISTORY OF THE PECULIAR FEVER, THAT OCCURRED AT MIDDLETOWN, CONNECTICUT, DURING THE MONTHS OF JUNE AND JULY, 1820.

1. For the information of such as are not acquainted with the situation of Middletown, it may be necessary to state, that the City bearing this name, is in north latitude 41° 34′ and 72° 40′ west longitude from Greenwich, and stands on a gentle declivity, sloping gradually to the river Connecticut, on the west bank of which, it extends about a mile and a half in length, and a mile in breadth, constituting but a small part of the township to which it belongs. It contains about three hundred houses, the greater number of which are within half a mile of the river, and in general, stand at considerable distances from each other, and consequently, enjoy the freest circulation of air. On the bank of the river, and about the wharves, there is not, and never has been, any accumulation of filth, nor are there any considerable manufacturing establishments, about which there is even a liability to such accumulations. There are

no stagnant waters in its neighbourhood, nor are the inhabitants ever affected with Intermittents.

2. Formerly Nervous-fever, and other typhoid diseases were common throughout the State, and occurred more or less in this vicinity. From about the time of the revolutionary war, to about the year 1805, a period of twenty-five or thirty years, Nervous-fever nearly disappeared in this quarter, and with the exception only of one or two seasons of Scarlet-fever and Dysentery, which were neither very severe, nor very mortal, unusual health prevailed. The few instances of fevers that did occur, were only sporadic cases, and were generally of high phlogistic or sthenic diathesis.

3. Between the years 1805 and 1810, there was a general, but gradual change of the diathesis of the diseases of this part of the country. After the year 1805, Nervous-fever again prevailed in the neighbouring towns, and even occasionally in the remote parts of this, yet there was nothing like an epidemic of this disease in the City, till 1815 or 1816, and not even then, to any considerable extent.

4. In 1816, there occurred about a dozen cases of the disease, which in Hartford has been called Spotted-fever, but which was, *toto cœlo*, different from what has frequently been so termed elsewhere.*

* See Strong's Inaugural Dissertation. Some conception of the rapidity and malignity of *genuine* Spotted-fever may be had from

This disease has since been occasionally met with, in various parts of the town, amounting in the whole, since it was first known, to perhaps twenty cases. Pneumonia-typhodes (a disease by the bye, essentially distinct from our Spotted-fever) has occasionally appeared since the year 1812, but never to such an extent as to merit the name of epidemic. Dysentery and Malignant-sore-throat, have not, of late, been prevalent to any fatal degree.

5. From the autumn of 1819, to that of 1820, there was an unparalleled exemption from all acute diseases.

In general, notwithstanding the occasional occurrence of the diseases just mentioned, the health of the City, comprising a population of more than twenty-six hundred inhabitants, has been greater than that of almost any place of its size, on the continent. Since the revolutionary war, I cannot find, except in one instance, that there have been half a dozen adults sick at one time, of the same acute disease. (1820.) The healthiest period of the year is always from the latter part of May, when the vernal

the case detailed, Page 114. It is a disease very distinctly marked; but from false theory, or some other cause, Pneumonia, Scarlatina, Typhus, Urticaria, and even some of the mildest complaints, appear to have been dignified by its name. This confusion has caused much dispute, concerning the treatment, among those who are unacquainted with the *real* disease.

diseases end, to the latter part of July, when the autumnal begin.

6. In 1820, the month of June was unusually warm, and even sultry, and rather dry, but notwithstanding this, there was an entire absence of even the usual diseases of the season, and indeed, a complete exemption from all common acute diseases. After the malady, of which we are speaking, had subsided, there was a speedy return of the customary health of the City.

7. The Fever about to be described, was by no means new to the Physicians on the river, as scarcely a year passes without its occurrence in Middletown and elsewhere, among sailors, immediately from southern or tropical sickly ports; and whatever shall be decided to be the fact this year, there never had been even a well founded suspicion, in times past, of its originating among us.

As the general character of the disease in question, has been very uniformly the same, whenever it has appeared in this place, the following description will apply, as well to former cases, as to those of the present season.

8. This Fever usually commenced more suddenly than the common Fevers of this vicinity. It was occasionally preceded by an obvious predisposition, though I think, more generally, it came on, without any very prominent warning. Its attack was always

very distinct, as it began with violent, though not long continued rigors, and severe pain in the head and back, which was most urgent in the occiput and neck, though much complained of, in the loins and limbs.

9. The countenance expressed great anxiety and dejection, the eyes had a *peculiar* and *striking*, dull muddy appearance, and in general, there was a kind of indistinctness, as to the termination of the iris, and the commencement of the pupil. They were turgid with fluids, and commonly, at first view, of a blood-shot appearance, but on minute examination, the vessels of the conjunctiva were rarely found to be distended with red blood.

10. In the lightest, as well as the most severe cases, there was invariably a *prominent* and *remarkable* distress and anguish about the region of the stomach, most commonly described as a burning sensation, but sometimes as a heavy and oppressive load, and more rarely, as a sensation of vacuity producing the greatest uneasiness. In the progress of the disease, this symptom was always accompanied with more or less soreness, complained of on external pressure.

11. In every case, the stomach was *uncommonly* irritable, and in most cases, the bowels were *peculiarly* torpid, but occasionally, the bowels were irritable likewise. From the very access of the disease, there was frequent vomiting, especially on taking any

thing into the stomach. Sometimes, however, the patient only retched without rejecting any thing, and more rarely, he merely thought he should vomit, without even retching. In general, the matter thrown up, was at first green and watery, afterwards gelatinous, then dark ash-coloured or light chocolate, in the latter stages, occasionally bloody, and in a few instances, it was the genuine dark coffee-ground matter.

12. The tongue was very variable in its appearance. Sometimes it had little or no coat upon it; at others, it was very slightly covered with a thin, fleecy, bluish, fugitive mucus, which extended to the very edges, and almost to the underside. This sometimes remained but a few hours, changing to two thin pointed stripes on each side of the centre, or to a thickish, loose cream-coloured crust, which separated easily and speedily, and left the tongue of a glossy, or of a natural appearance, or it was converted into a thin brown covering, which at first view appeared dry, but on closer examination, was in fact otherwise. In the last stages of most of the mortal cases, the tongue appeared red and rough, though clear from coat.

13. At first, the patient complained of excessive thirst and dryness of the mouth, though as respects moisture, it was to the eye in nearly a natural state. This symptom rarely continued for any considerable length of time.

14. The skin was uniformly either of a silky or of a leathery feel, its temperature rather cooler than natural, or rarely, it was of common warmth. At first touch, it often produced a greater or less degree of the peculiar acrid or stinging sensation of the Putrid-fever. This was, in general, more prominent in cases of cool skin, than in those of nearly the natural heat. In past seasons, as near as is recollected, some cases apparently had more heat at the access, but the subject had not then been as much reflected on, so that it is quite probable, the stinging sensation was mistaken for a real increase of temperature.

In every case, the skin, if not positively moist, easily became so under the hand, and a kind of fugitive moisture most commonly occurred spontaneously, at short intervals. In some instances, there was a free clammy sweat, nearly the whole time.

15. From the very access, the pulse was uniformly *soft* and *weak*, and frequently *small*. In a majority of cases, the number of pulsations was between eighty and ninety in a minute, but in a few instances, there was a preternatural slowness, so much so, as fifty beats in the same time. In the latter stages, the frequency was often as great as a hundred and twenty, or a hundred and thirty.

16. Within twelve, twenty-four, or at farthest, thirty-six hours, there was uniformly, a very *promi-*

nent and *singular* remission of all the symptoms.* This remission always took place sooner or later, without medication, but speedily followed almost any efficient plan of practice. It was less complete and sooner succeeded by an exacerbation, when the plan adopted was not judicious. This remission was often so perfect, that the patient, while quiet in bed, felt almost free from disease, and the attendants were liable to consider him as out of danger, and actually convalescent. After this period, the symptoms which principally constituted the exacerbation, and which were most complained of, were the anxiety about the epigastrium, and the vomiting; but in the cases which terminated fatally, the vital energy of the circulating system began, at this time, to be much impaired, and continued to decrease rapidly, so that it was sometimes necessary to adjust the degree of pressure upon the artery, very nicely, in order to perceive its motion; and at others, on slight examination, it had a deceptive appearance of fulness, which, on increased pressure, was found to be absolute weakness, as all perception of motion was almost as easily extinguished, as in the other case. The counte-

* Although in the Fever of 1820, the remission invariably occurred within thirty-six hours, still it is a well known fact, that it is sometimes postponed as late as the third day. In years past, its precise period is not recollected.

nance, at the same time, became haggard, the conjunctiva in every case was more or less yellow, and in a majority of cases, the skin assumed, in a greater or less degree, a yellow hue. In some, there was either a prominent sun-burnt, or tawny, or orange, or deep-fuliginous, or mahogany tinge. Slight hæmorrhages took place from the nose and mouth, or by a slight cough, from the lungs, but notwithstanding these symptoms, considerable muscular strength often remained, and the patient, but a short time before death, was occasionally able to walk some distance from his bed to a chair.

17. Singultus and subsultus, I think, uniformly occurred in the latter stages. In some instances, convulsions and coma alternated with each other, and in others, there was raving delirium, and in one, a stupor approaching to Apoplexy, and complete absence of the pulse in the wrists, for twenty-four hours before death.

18. In almost all the cases, after the cessation of the commencing rigors, there was, at intervals, throughout the remainder of the disease, a universal tremor unaccompanied with chills, or any sensation of cold, which a superficial observer might have mistaken for an ague. Throughout the principal part of the disease, there was likewise, in most cases, that peculiar mild delirium, which is so generally overlooked by attendants, but which is always sufficiently obvious to a discriminating Physician.

19. After death, the surface became rapidly livid, sanious and bloody discharges took place, on moving the body, from every outlet, and all the symptoms of incipient putrefaction speedily appeared. In general, there was but little fetor before death, and even the usual febrile smell was not, in many instances, at all perceptible.

20. In the mild cases which recovered, there was seldom much yellowness, except perhaps of the conjunctiva. The matter vomited was simply watery and green, or gelatinous. The aberration of mind was much less. There was neither hæmorrhage, singultus, convulsions, nor much coma.

21. Four cases in 1820, came to their final crisis on the seventh day, which was indicated by a total subsidence of the distress about the epigastric region, and disappearance of the irritability of the stomach, as well as by a return of the natural feel of the skin, and the usual appearance of the tongue and countenance.

22. In the severer cases, in which recovery took place, the state of the conjunctiva and skin, the quality of the matter vomited, and the state of the mind, were much the same as in the mild cases; but the anxiety about the epigastrium, the irritability of the stomach, the appearance of the eyes and countenance, and the weakness of the circulating system, were much greater. In both, however, there was an

absence of all the symptoms, which marked the latter stages of the mortal cases; but the disease was commonly protracted to the fourteenth day, though during the second week, it lost most of its peculiarities; the uneasiness about the stomach being comparatively trifling, the disposition to vomit being strikingly abated, and a certain degree of daily remission and exacerbation being so obvious, that on imperfect and slight investigation, the cases might possibly have been mistaken in this stage, for obscure Remittents.

23. The rapidity of the disease, was a very striking feature, in comparison with the indigenous Fevers of this quarter. In but one of the fatal cases, did the patient survive till the eleventh day, three continued to the seventh, two died on the fifth, and one sunk down on the latter part of the third, and actually died on the commencement of the fourth; whereas, in the common Nervous-fever of this neighbourhood, fourteen days is the shortest period. There can be no question respecting the facts, in relation to *my* patients; for, except in three cases, all of them were, this season, suddenly attacked, without any noticeable predisposition, and although in these three, languor and coldness preceded for several days, yet the rigors and pain were as sudden, and as prominent, as in the other cases.

24. It was very evident, that this Fever, when re-

gular, is a disease of seven days; though the severity of the symptoms was often such, as on the one hand, to terminate the life of the patient on the fifth, or even the third; or in some cases, where recovery took place, it was on the other hand, sometimes protracted to the fourteenth day.

25. The pathognomonic symptoms of this disease, or those which distinguished it from *every other simple Fever* were,

1st. A *peculiar* appearance of the eyes and expression of the countenance, which occur in no other case, and which, however difficult to be described in words, is easy to be recognized by every one, who has ever noticed it with any attention;

2dly. An *anxiety* and *distress* about the epigastric region, together with an *irritability* of the stomach, both of which are absolutely *sui generis*, and *strikingly* distinct from the corresponding symptoms, of *any other* Fever, with which we are acquainted;

3dly. One *singular* early *remission* of all the symptoms, usually between the first twelve and thirty-six hours, which terminates the first stage, and is *not* to be found in any other Fever.

26. These symptoms, it is believed, constitute in the aggregate, if not individually, absolute and unequivocal diagnostic marks. I am aware, that it is difficult, perhaps impossible, to convey an adequate idea in words of their peculiarities; but with suitable

attention, they may *always* be discriminated, at the bed-side of the patient.

27. Other peculiarities of this disease, in comparison with the simple Nervous and Putrid-fevers of this part of the country, were the suddenness of the attack, the greater severity of the rigors, the situation and intensity of the pain in the head, loins, and limbs, the degree of muscular strength in the latter stages, and the rapidity of the cases. It differed likewise very materially from the Remittent-fever, in the deficiency of any prominent, regular, or essential daily remissions and exacerbations. This last mentioned disease, it is believed, is substantially the same, both in temperate and torrid regions, with the exception only of some unimportant variations in violence and rapidity. I speak with more confidence respecting the Remittent, from having frequently attended imported cases.

Except as respects the mere pathognomonic symptoms, this disease might be compared to a combination of the two first, and the three or five last days of a common Putrid-fever. It must be remarked, however, that *with us*, it was invariably destitute of the increased temperature of the skin, and the black crust about the mouth, that belong to Putrid-fever, which, on the other hand, seldom or never has, at least in any ordinary case, the sallow, tawny, mahogany, or orange hue of the skin, that occurred so frequently in this disease.

With the exception of Spotted-fever, Pneumonia, and Cynanche, *we* have no serious, regular febrile disease, of any kind, among adults, which is of so short duration.

28. Although the preceding statement may appear sufficiently explicit, yet I hope it will not be deemed superfluous, to observe here, that this disease in every stage, was entirely destitute of any actively inflammatory, phlogistic, or sthenic symptoms whatever; and that it was always of some shade, or degree of the Putrid, or Typhus-gravior type, in contradistinction from the Nervous, or Typhus-mitior type. I wish, that attention may be especially directed to these circumstances, as it is so *fashionable* at the present day, to overlook them entirely, though they are in fact, among the cardinal points, on which all truly discriminating and judicious practice must depend.

29. I wish, it may likewise be noticed in this place, that though the several cases varied very greatly, in the violence and obstinacy of their symptoms, yet as respects similarity in *kind*, they had much greater uniformity, than is common in *our* usual diseases; and hence, but little *accurate* observation, or *close* discrimination was necessary, to identify the disease, and distinguish it from all others.

30. From a consideration of all these circumstances, together with a diligent attention to the

principal writers on tropical diseases, I have no hesitation in asserting, that the conclusion is both incontrovertible, and irresistible, that this was nothing more nor less than the YELLOW-FEVER of the West-Indies; and I venture to decide, that if it is not specifically distinct from all other Fevers, in the strictest sense, in which the term *species* is ever applied in nosology, there can be no such thing as distinction of species among any of the common febrile diseases. I can truly say with Jackson, that *with us*, it "*may be discriminated with certainty, even in the first hours of its attack.*" Much of the controversy upon this subject, I am persuaded, has arisen from the confused or imperfect descriptions of men, who from carelessness, inexperience, ignorance, obstinacy, or incompetence to the task, have failed in accuracy of observation and detail, or who from erroneous theoretical notions, have designedly confounded it, both with Remittent and Putrid-fevers. I am not at all disposed to deny, that a peculiar combination of circumstances may not, occasionally, serve to disguise sporadic cases of this, as well as of every other Fever, so that, "*si nomina dare velis, Œdipo conjectore opus erit*"—if you would impose accurate denominations, the aid of a conjurer would be necessary; but I must, at the same time, plead my inability to discover, how this proves, that there is really no definite distinctions of species in Fever, any more, than the existence of monsters

among animals and vegetables, proves that there is none in these two great kingdoms of nature. I would not, however, be understood as contending for terms merely. Should any person still insist, that Yellow-fever is only a severer, more rapid, and more dangerous form of Remittent, or indeed, that all simple Fevers are essentially the same, and do not afford any real foundation for distinction into true species, be it so—and I shall still maintain, that for every practical purpose, Yellow-fever is incontestably a sufficiently distinct, uniform, and permanent variety, or form of disease, to be always discriminated with facility, and to require very considerable peculiarities of management. The same is undoubtedly true of Intermittent, Synocha, Nervous, Jail, and Putrid-fevers, as well as of that peculiar Fever, to which children are so liable.

31. I have stated, that this disease, as it has existed of late in Middletown, has been entirely destitute of any actively inflammatory, synochoid, phlogistic, or sthenic symptoms. I am aware, that in this respect, it will be considered by many, as differing materially from the Yellow-fever of authors; but let it be remembered, that diseases essentially the same, vary as regards diathesis, from difference of climate, period, and season; and especially, that the Phlegmasiæ and Exanthemata always conform, in a greater or less degree, to the prevailing constitution. In sim-

ple Fevers, however, there must be admitted to be a much greater tendency to uniformity on this point. If Intermittent, of which I think it probable, that Ephemera and some cases of Remittent are mere varieties, if Nervous, if Jail, and if Putrid-fevers, are not, at all times, and in every stage, positively asthenic, it is only at their very commencement, that any really inflammatory or phlogistic symptoms *can* ever be found to occur; and these must usually be so yielding and transient, as to be much more safely subdued by Calomel, than by powerful reducing and antiphlogistic agents. It would be a solecism to suppose that a Synocha is ever capable of existing in an asthenic state, yet it is well known to be much less phlogistic at some periods and seasons, than at others; and when it continues through a second week, especially if well treated, it always becomes a Typhus, probably constituting, in both stages, one variety of the Synochus of most writers.

The question very naturally occurs, Whether the prevailing diathesis of the Fevers of this vicinity, will account for the character of *our* Yellow-Fever, in this respect?

32. From a careful examination of authors, I find but three circumstances related, which at all favour the idea, that this disease is *ever* sthenic. In every other respect, there is the most perfect concurrence, in a detail of none but unequivocally asthenic

symptoms. The circumstances to which I refer, are,

1st. *The supposed strong and hard pulse;*

2dly. *The supposed beneficial effects of bleeding;* and,

3dly. *The supposed ill effects of excitants and tonics.*

33. With respect to the first, it is well known, that the same pulse is often described by different physicians, not only by various, but even opposite denominations. We find this, not only in relation to Yellow-fever, but to many other diseases, nor does it occasion any surprise, when we recollect how often we have witnessed a completely gaseous pulse, mistaken for a full and strong one, a small wirey pulse indicative merely of irritation, for a hard one, and that which was morbidly natural, for the genuine pulse of health.

34. With respect to the second circumstance, it appears, that a prominent remission of all or most of the symptoms of this disease, invariably follows *every* efficient plan of practice, the most absurd equally with the most judicious; and even, that it takes place, sooner or later, without any medication at all, and is in fact a peculiarity of the disease. This consideration will perhaps assist in affording a solution of the difficulty, that results from the opposing testimony, in regard to the benefit of the practice

in question; for nothing can be more obvious, than that those not thoroughly aware of this fact, would be likely to attribute such remission, entirely to the benefit of the previous medication.

Under the idea that this remission is an essential characteristic of the disease, the fallacy in respect to the immediate operation of bleeding, is evident, and it becomes necessary to extend our views to the secondary and latter stages, and even the final event, in order to form a right estimate of the practice.

35. Upon the subject of cause and effect in medicine, most men are peculiarly liable to draw erroneous conclusions, and then cherish them as the results of experience. Physicians in general, content themselves with *present* appearances, without the trouble of investigating *ultimate* consequences. *Post hoc, ergo propter hoc,* is the only reasoning of the mass of mankind, and the same method, too often misleads the intelligent and the judicious. But, to overlook, entirely, the connexion between the cause and its remote effects, is the greater error, and one which is alike common to the ignorant and the learned, the weak and the wise. For instance, it often requires more closeness of observation, and accuracy of discrimination, than most men are able or willing to bestow, to ascertain whether irritability of stomach, diarrhœa, or any other unpleasant symptom, that occurs in the latter stages of an acute disease, is the

remote effect of antimonials, neutral-salts, vegetable acids, &c. that were employed during the early part of the complaint.

I believe, it is capable of proof, that in ordinary cases of Pneumonia-typhodes, or even common Typhus, the injurious effects of bleeding, and drastic vomiting and purging, are very seldom immediately apparent. Indeed occasionally, they even seem for a time, to palliate and relieve; but arrived at a critical period, the patient is liable to sudden sinking, and not unfrequently, to death itself.

36. Besides, the most ill-judged means, by their strong impression, often occasion a temporary suspension of the urgency of existing symptoms, though at a subsequent period, they are ever liable to recur with redoubled violence. In instances of mistake on this subject, I have often witnessed, what is so vaguely styled *a rising of the pulse* after depletion, even in the most decidedly asthenic cases, which, in fact, amounted to little more, than a few longer vibrations of a pendulum nearly at rest, in consequence of a single new extraneous impulse. Such an impression, however, must always be disastrous, and frequently fatal. But I trust, it is sufficiently obvious, that the general and remote effects are often more to be attended to, than the immediate, and that a knowledge of these does, in fact, constitute the very essence of *true* experience.

37. With respect to the third circumstance adduced to show that Yellow-fever is sometimes sthenic, I think, its fallacy may be made very clear. In the management of most cases of disease, there are always prominent, and leading indications of treatment; but subordinate to these, there are certain minor ones, which, strictly speaking, may be considered as merely preparatory to the other. The first, however proper and necessary in general, cannot, except in a few sinking cases, be entered upon, till the second have been previously answered. This preparation, in regular typhoid and other asthenic Fevers, consists principally, in obviating such conditions and symptoms, as are incompatible with the general plan; as in clearing the alimentary canal, rendering the skin and other excretories free, equalizing excitement, and in subduing that morbid irritability so universally present in such cases, &c.

In a word, excitants and tonics may be indicated, both as counter-agents and supporters, while the stomach and bowels are too much clogged, to allow medicines to act on them, or the excretories may not be free enough, to have their operation salutary, or there may be some local complaint, which interferes with their use, or the system may be too irritable to permit their administration. *Suitable* and *appropriate* preparation always produces a kind of semi-critical change, without materially reducing the strength of the patient; but on the other hand, that which is

injudicious, never fails of increasing both the weakness and irritability, and not unfrequently even the heat and dryness of the skin, without much perceptible advance toward accomplishing the purpose desired.

38. This stage of typhoid and asthenic Fevers, is *essentially* distinct from inflammatory or phlogistic diathesis, and has nothing in common with it, except the ill effect of excitants and tonics. But, from this circumstance alone, it is generally inferred to be inflammatory, and the patient is accordingly treated with the whole routine of reducing agents, such as bleeding, quick antimonial emetics, powerful and drastic doses of the saline cathartics, together with the refrigerant neutral, alkaline, or acidulous salts, vegetable acids, &c. which not only greatly augment the *debility*, but most commonly increase the *irritability* in a much greater proportion, so that perhaps even in the extremity of exhaustion, infusions of Serpentaria, or the necessary aliment, seem to disagree, and produce irritation. This is considered as additional evidence of an inflammatory diathesis, and leads to the repetition of antiphlogistic agents.

39. This *confounding* of irritation with strength, has given rise to the whimsical and absurd opinion, that debility can never be predicated of fever, and of course, has led to a total disregard of every waste of the powers of life.

Much more mischief has probably resulted from

this doctrine, than from the equally unfounded one of direct and indirect debility.

It is much to be lamented, that at the present enlightened period, so much indulgence is granted to such visionary and baseless hypotheses, when there is such ample evidence, throughout the whole annals of medicine, of their baleful influence.

40. But, where the necessity and importance of suitable and appropriate preparation, is thoroughly understood, there will never be any difficulty, respecting the subsequent employment of almost any supporting article. In my own practice, and that of friends who pursue a similar course, no case of typhoid Fever is found to occur, that will not be in a state to bear without inconvenience, and be benefited, by Cinchona, and generally by Alcohol in some shape, as early at least, as the commencement of the second week of a fourteen-day disease, and earlier in more rapid cases; but among those acquaintances, that in the commencing stage, employ the plan above alluded to, it is without doubt, often the fact, that their patients do not bear Cinchona at all, and frequently, not even Serpentaria, as long as the disease lasts.

A demonstrative evidence, that this depends upon the difference in the early practice, or preparation, is afforded by the fact, that I have often witnessed, in the same place, and the same epidemic, the same variation, in the hands of different physicians.

41. I believe that every other symptom and circumstance, except those just considered, which is detailed by writers on Yellow-fever, concurs to prove, that the disease is always more or less asthenic. Even Mosely, who next to Rush, is the greatest champion of the inflammatory character of Yellow-fever, acknowledges that bleeding, after the very first stages of the disease, is entirely inadmissible; and in those cases, where he considers it as the most serviceable, he advises to follow it immediately by Cinchona. In addition to this, he uniformly reprobates antimonials, and other refrigerants, in any efficient doses; and he seems rather to admit them, in absolutely insignificant quantities, for want of something better, or perhaps wholly from his theoretical notions respecting the complaint.

42. But there is a variety of Fever by no means uncommon, which, in its early stages, is almost universally confounded with Synocha, and consequently treated for some days, by the most powerful antiphlogistic means, by many even of the best practitioners. This variety is sudden in its access, commencing with distinct rigors, and more or less violent pain. The skin is frequently more hot and dry than in highly putrid diseases, but at the same time, it produces a much less degree of the peculiar, acrid, stinging sensation. The face is flushed, but not livid; and there is sometimes moderate redness of the eyes. At

first, the coat on the tongue is usually white, and the thirst considerable; there is sometimes nausea and bilious vomiting, or diarrhœa, and high coloured urine. There is more restlessness and anxiety, than in Nervous-fever, but much less, than in the highly Putrid. The pulse is usually full, but instead of being *strong*, yields under pressure, and contrary to what is the fact in Synocha, it is not at all perceptible during the systole of the artery. In a word, it is never both *strong* and *hard*. When these symptoms do not subside in the early stages, sordes accumulates about the mouth, the breath and excretions become more or less fetid, and a greater or less degree of the symptoms usually denominated putrid, appear.

Cases of Yellow, and other Fevers, Dysentery, Pneumonia-typhodes, &c. that are attended with these symptoms, not unfrequently occur, and when not very severe, lose most of their peculiarities, in a few days, under almost any efficient treatment, after which, they are universally admitted to be typhoid.

This form of fever, which may be termed *counterfeit* Synocha, or the *sub-putrid* type, occurs in temperate climates, during the universal prevalence of the asthenic diathesis, and seems to predominate under the same circumstances in tropical countries. These are the cases, that are supposed to prove the occasional intercurrence of sthenic diseases during the exist-

ence of a general asthenic state. This delusion is kept up by the fact, that they do not, like Nervous-fever, so obviously sink after great depletion, but generally recover, especially when this measure is followed by Cinchona, and other tonics and excitants; though usually, convalescence is tediously prolonged, and the patient is liable to relapse. Such cases are commonly said to *bear bleeding well.* Whoever will be at the pains to study the subject of diathesis thoroughly, and not suffer himself to be misled by theory, is however in no danger of mistake. It is true, the theorist may be so blinded, and the superficial and indiscriminate may be so ignorant, as not to discern any difference between these and inflammatory cases; but it is certain, that depletion and the antiphlogistic plan will not answer near as well as in Synocha, and the case will usually go on without any permanent mitigation of symptoms till a critical period. Here the patient will be liable to sink suddenly and unexpectedly. Such an event usually calls forth every exciting and supporting agent, and if recovery takes place at last, the physician congratulates himself, that he has cured so formidable and anomalous a case of disease.

43. When viewed comparatively, I trust it will be obvious, that these cases, in fact, constitute a peculiar variety of the Putrid, or Typhus-gravior type. But there are at least two other varieties, one of which

will be recognised in the examples which are the immediate subject of this Essay, and the other, in the prominent and unequivocally Putrid-fever of authors. In the detail of symptoms, Dr. Robert Jackson, in his account of the Fevers of Jamaica, seems pretty accurately to discriminate the whole three in the Yellow-fever of that climate; though the heat and dryness of the skin, and the fulness of the pulse, in the one just considered, seem to have confounded him, as respects the true indications of cure.

It is, however, extremely important in a practical view, to distinguish this combination of symptoms from those which are really inflammatory; for it is believed, that among rational physicians, the principal disputes respecting the propriety of bleeding, and a reducing, antiphlogistic course, arise from such cases. In comparison with the soft, weak, and small pulse, of regular Nervous-fever, the pulse of this variety, in combination with a hot and husky skin, might indeed be liable to be considered as relatively strong and hard, especially when it is forgotten, that the really full, strong, and hard pulse of genuine Synocha, can be the *only* true standard.

44. In such cases, cold affusion, cold drink, free admission of cool air, and the employment of mineral acids are generally serviceable. But, when we reflect, that the early stage is so rapidly followed with symptoms of debility, and what is commonly called

putrescence, and when we consider, that after suitable preparation, Cinchona is so absolutely indispensable, it must be obvious, how very absurd it is to waste the vital fluid, in such cases, by depletion, and to reduce the strength, by energetic antiphlogistic means.

Even the most strenuous advocates for bleeding, find it necessary to follow these measures immediately with Cinchona, and to be in haste to repair, with one hand, the waste that has just been made by the other.

In the very forming stages, or even in mild cases at a later period, as is elsewhere remarked, free bleeding, by the sudden and powerful impression, which it makes upon the system, may possibly suspend, or break up the disease.

It seems most likely, that the Yellow-fever, in which Rush bled so profusely, was of this variety of the Putrid-type.

45. But it is true after all, that in Middletown, for some years past, not only Yellow-fever, but all other typhoid diseases, have been attended with such a cool and moist skin, and such weak, small, and soft pulses, as to admit of no question, as to their real character. This subject affords an unbounded field, and one which neither the present occasion, nor my limits allow me to explore. Suffice it to say, that there can be no possible question, with regard to the

character in this respect, of the cases of disease, which are the more immediate subject of these remarks. Besides, as I have before observed, I am fully aware, of the occasional variation of the diatheses, and other symptoms, of different epidemics, of one and the same disease, at different periods, in the same place, but more especially, in different places, and different climates. Perhaps no disease furnishes so prominent an example of the deviation in question, as Small-pox; as the specific identity of both the inflammatory and the typhoid cases, or in other words, of the distinct and confluent varieties, is completely demonstrated by the fact that inoculation, or casual communication, from one variety, is capable of producing either indiscriminately.

46. In regard to the origin of this disease, in this place, let it be noted, that Middletown is unequivocally one of the most salubrious situations in the whole United States, that it is remarkably cleanly, and free from all noxious exhalations, either from stagnant waters, or collections of filth, from manufacturing or commercial establishments of any sort; that this disease occurred at the most healthy season of the year, and one at which there was the most perfect absence of all other acute diseases; that the majority of the cases might be *incontrovertibly* traced to the Brig Sea-Island, a foul vessel from St. Jago de Cuba, or to other shipping; that a simi-

lar disease followed the progress of the Sea-Island, commencing, at least in one case, at the very mouth of the river, and occurring in whatever neighbourhood she stopped; and that no cases this season, in other towns, are known to have happened, except in her vicinity, or which had not a certain connexion with her; and finally, though the same disease has frequently occurred here before, yet it has *never* happened, without being brought from aboard some vessel recently arrived from foreign ports.

The only difference with us, between this season and the past is, that there had previously been no well grounded suspicion of its spreading on shore; whereas, some of the late cases, especially at the Upper-Houses, and probably in the City, were, this year, *evidently* contracted from communication with the sick.

47. With all these facts *staring us in the face*, it would be worse than useless to spend time in combating any whimsical theory in favour of its domestic origin in *this place*. In reference to the only obvious conclusion on this point, I can employ the words of Cicero, with quite as much propriety, as an American writer on the same subject, who has drawn very different inferences. "*Rationem quo ea me cumque, ducet, sequar.*" Common sense I follow, as my guide.

I would not, however, be understood to give any

opinion, with regard to the controversy respecting its origin and propagation, in the Cities of the Middle and Southern States, nor as interfering in the least, with any question respecting the *possibility* of its occurring spontaneously.

48. Before leaving this subject, I cannot forbear remarking, that Middletown, time immemorial, has been uniformly exempt from all devastating epidemics. In 1775, it appears that Cynanche-maligna commenced, which prevailed, in common with Dysentery, for two or three years, with considerable mortality, about doubling the usual number of deaths; and in 1783—4, Scarlatina prevailed, but not in a very severe form. These are the only instances of any material increase of the mortality of the place, from any acute disease, of which I can find any account, from the first settlement of the town, to 1820.

TREATMENT.

49. From the fact, that cases of this disease have been, for years past, more or less common among our seamen, and from the clashing testimony, and opposing experience of practitioners, respecting its treatment, we have been led to watch its commencement, and to observe, with closer attention, the effects of various remedies, and its progress, and termination, more minutely, than we have been generally in the habit of doing, with regard to our common diseases; and notwithstanding it has proved

so mortal, and even so large a proportion of the cases in this town, have terminated fatally, yet there has been sufficient evidence, when *suitable* medication has been *promptly* employed, that *with us* at least, it is not *necessarily* so deadly. Of all the cases that have fallen under our care, either this season, or years past, it is not recollected, that more than *one* has ultimately failed, when we have been called within the first twenty-four hours, and when neither the patient nor his friends, had themselves employed injudicious medication. Indeed, recovery has often happened among the worst cases.

It will be obvious, that neglect, or mis-management, during the first thirty-six hours of a severe disease, of but about five days' continuance, must *usually* be irreparable.

From the circumstances, that the access of many of our common febrile diseases is so moderate, and their duration so much longer, most of our citizens are not in the habit of applying early for medical aid; and often, not till they have *wasted* a day or two, in ineffectual, and commonly *pernicious* efforts to manage themselves. In this disease especially, from the delusive remission, which always follows the first period (and which is so liable, *with us*, to produce a false security in the minds of practitioners, as well as others, who are not conversant with such cases) it often happens, that the physician is not called, except

to witness the sudden, unexpected, embarrassing, and tremendous symptoms of the closing stage.

50. Bleeding. Notwithstanding bleeding was once so popular in this disease, I believe, at the present day it is laid aside, by almost *universal* consent. If there is any such thing as deciding *a priori*, by symptoms, on any species of treatment, bleeding was certainly contra-indicated in *our* cases. It is barely within the limits of possibility, that in the very forming stages, the sudden abstraction of a large quantity of blood, might, by its shock, or strong impression upon the system, produce such a change, as to arrest the disease. Upon this principle, *the most absurd and unlikely means*, it is well known, have occasionally done good. For instance, drenching with hot spirit and water, together with the most stimulating aromatics, and essential oils, have, now and then, by inducing a copious perspiration, broken up a Synocha, though in opposition to every rule of good practice. At any rate, no physician in this quarter, has been sufficiently hardy and unprincipled, to make such experiments.

51. Emetics. If there is any one point, upon which all respectable authors and practitioners agree, it is in the injurious consequences of emetics of all kinds, in this disease—but especially, of Antimonials. Though I have never administered them myself, I have frequently had opportunity, to witness their ill

effects; such as uncontrollable aggravation of the nausea and vomiting, very great increase of the anxiety in the epigastrium, prominent acceleration of the progress, and augmentation of the general violence of the disease, together with a heightening of all the putrid symptoms. Indeed, Antimonials, even in small doses, were *uniformly* pernicious; always increasing the irritability, and distress about the stomach, coinciding with all the diseased actions, anticipating, hastening, and aggravating, the subsultus, singultus, black-vomit, hæmorrhages, convulsions, coma, and death.

I can truly say with Mosely, that *I have often seen and lamented the ill effects of Tartar-emetic; that it has done much mischief, and is a dangerous medicine in such cases, that it often proves fatal to the stomach,* &c. &c. Antimonials, though not always absolutely destructive in moderate cases, were never to be considered as *safe* in this disease.

52. Cathartics. Though perhaps it was always necessary, that the bowels should be moved in the beginning, and kept open during the progress of the disease, when it was not attended with diarrhœa, yet purging for the sake of the evacuation merely, or as a reducing agent, was always injurious. Even for the mere purposes of a laxative, or in small doses, under the vague and indefinite notion of febrifuges, neutral, alkaline, or acidulous salts, effervescing neu-

tro-saline mixtures, vegetable acids, and Spirit of Nitric-æther, had uniformly the same general ill effect as Antimonials, though perhaps, in a less degree. Indeed, cold water, infusions of Melissa, and other mild diluents, were usually thrown off from the stomach, as soon as swallowed.

53. Sweating. Sweating seemed to be not only useless, but was decidedly of disservice; and if pushed so far as to operate as an evacuant, it rapidly exhausted the powers of life, without mitigating a single symptom. It is true, it was necessary in this, as in most other cases of disease, that the excretories of the skin should be free, in order to insure the best operation of the most appropriate remedies; but this usually required no very particular attention, and there was certainly never any difficulty on this score, when the early treatment had been proper. At any rate, every nauseating and debilitating diaphoretic, seemed to coincide with the general action of the disease, and to aggravate the distress of the patient.

54. Cold Affusion. If the limitations and restrictions, which are laid down by the best authorities, for the use of cold affusion, are to be at all regarded, this remedy was to be entirely rejected in all these cases. The coolness of the skin, the morbid perspiration, or the facility with which it was excited, and the uniform exhaustion of all the vital powers, decidedly forbade it.

55. In a word, the whole, and every part of the antiphlogistic practice and regimen, were studiously to be avoided, from the very access. Even that incongruous and inconsistent mixture of antiphlogistic and alexipharmic agents, or in more modern language, of reducing and supporting, of coinciding and counteracting treatment, which we so often see intermingled in the management of Nervous-fever, was in a tenfold degree more absurd and injurious, in this disease. Such practice, probably, always results from indefinite ideas with respect to preparation, and the necessity of following it with prompt and efficient support. If the disease has slain its thousands, such treatment has slain its ten thousands.

In addition to the inconveniences and disadvantages already mentioned, as resulting from each individual item of a reducing and refrigerant practice in this disease, there was another prominent one, produced by the whole taken together, and in a proportional degree, by any part, viz. a very great augmentation of the general morbid irritability, which, to a greater or less extent, is liable to attend the latter stages of most typhoid febrile cases. Under such a plan of treatment, this morbid irritability was sometimes so excessive and troublesome, as to prevent the use of almost every supporting agent, even in the extremity of exhaustion—an exhaustion usually increased in a regular proportion to the irritability.

Under the management about to be specified, it was invariably found, not only that the debility of the latter stages was less, but that there was *comparatively none* of this irritability, and consequently that the patient was able, at any time, to take without inconvenience, and to be greatly benefited by tonics, and diffusible excitants of almost every kind; and even in those cases that finally proved fatal, it was attended with a great alleviation of the most distressing symptoms, and an evident prolongation of life.

These remarks, let it be noticed, do not result from *theory*, but from careful observation; for, with the exception of bleeding and cold-affusion, which *among us*, no man of common sense, at the bedside of the patient, would be in any danger of adopting, I have witnessed a fair trial of every article above mentioned. Indeed, infusions of Eupatorium, Anthemis, Mentha, Hedeoma, and other moderately tonic and aromatic articles, seemed generally to fall so far short of the urgency of the symptoms, as in some cases actually to make weight in the opposite scale, and to produce an obviously atonic effect.

Yeast, which has been so much extolled in typhoid diseases, was as suddenly rejected from the stomach, as any other nauseous, offensive, and nearly inert article. Charcoal as a tonic, in *our hands*, has so absolutely and completely failed, in all other

low diseases, as never to have been thought worthy of a trial.

56. When called in the early stage of the disease, and previous to the employment of any medication whatever, it was found to be invariably proper, to apply epispastics to the region of the stomach, and the back of the neck. In order to insure their best effect, it was requisite, that they should be large, and limited in size only by the extent of the part on which they were to be laid. As usual, when the surface is torpid, and when a speedy effect is desired, it was necessary, that the part should be thoroughly chafed with the strongest Vinegar, or with a saturated tincture of Lytta, and that the plaster should be strong, and *thickly* spread.

57. When the bowels were torpid, as was the fact in a majority of cases, it was in the next place necessary to administer, at short intervals, *very large* doses of Calomel *simply*, which were to be continued perseveringly, till the alimentary canal should be moderately, but thoroughly evacuated. Electuary was found to be a much better form than pills, for the administration of this article. Much purging, however, not only failed of being serviceable, but usually did hurt.

58. After the application of the epispastics, and the commencement of the Calomel, it was generally useful to employ pediluvium, to apply strong sinapisms to the feet, and to administer moderately,

infusions of Serpentaria, or other similar diaphoretics. During the continuance of the thirst, it was sometimes admissible to use sparingly infusions of Hedeoma, Pycnanthemum, and Brachystemum, but most commonly, the Serpentaria was found to be sufficient; and in general, the new action which was produced by the epispastics and the Calomel, was adequate to allay this symptom, in a few hours, without much assistance from liquids.

59. After the evacuation of the bowels, Opium was *steadily*, *resolutely*, and *perseveringly*, to be employed, at *short* and *regular* intervals, in such quantity, and with such frequency, as to allay all the remaining pain and irritation, and to support the powers of life. The Calomel was likewise to be continued in as large quantities, as under these circumstances, could be retained on the stomach and bowels. The only limit to the Opium was, either the complete alleviation of the symptoms, or troublesome soporific effects, and to the Calomel, either the uncontrollable production of catharsis, or an effect upon the mouth. Much purging, as I have heretofore observed, was certainly to be deprecated, and a free ptyalism was never desirable. The Calomel was to be entirely discontinued, whenever the mouth became affected; but we did not wait for this, when there was much exhaustion of the vital powers. It was perhaps never to be continued after the fifth day; and if used efficiently, or if the

case was a very low one, seldom after the third. But in the lowest cases, and those in which there was the greatest insusceptibility, the Calomel *would not* usually take effect, unless by the powerful aid of Alcohol, Arsenite of Potassa, Capsicum, Tincture of Lytta, the essential oils, or other highly exciting powers.

During this course, if it was properly and dexterously managed, other diaphoretics and laxatives were entirely superfluous, and only interfered with more important agents.

60. By such means, a favourable abatement of the disease was soon produced, the irritability and distress at the stomach, were in a great degree overcome, or materially mitigated, every violent symptom was lessened, the character of the Fever was essentially changed, and the succeeding stage became comparatively mild and manageable; or in other words, a *new* action was induced, which, to a greater or less extent, *overcame* the action of the disease, and *prepared* the system for a regular course of support.

61. In such an alarming and speedy disease, all the energy and decision of the practitioner is required. In the words of Mosely, "*its rapidity demands the most decisive promptitude—the shortness of its duration affords no time for experiment—an error once committed can never be remedied.*" In such cases, enough of the power of medicine has been witnessed, when energetically applied, to entitle the statements

of the tropical physicians to the most implicit confidence, when they assert, that more than a thousand grains of Calomel may occasionally be given, in this short time of the *preparatory* stage of this disease, and a proportional quantity of Mercurial ointment applied externally, not only with safety, but with the most complete success. Indeed, in one of the worst cases, which I ever witnessed, though not of the present year, four hundred grains were administered in four days, without the least inconvenience, but with the best effects in preserving the life of the patient. Truly we can say in the words of a foreign writer, that "*neque pondus hic quidquam, aut mensura determinat, sed morbi levamen*"—that neither weight nor measure is to be at all regarded, till there is an alleviation of the disease.

I am thoroughly persuaded, that the reason why Calomel has so often failed, and come into discredit, is, that it has been too *timidly* used, from a false analogy to our common diseases, or without the Opium, which has allowed it to reduce the patient by too much purging; or it has been accompanied by Antimony, or other improper articles, which have more than counteracted its beneficial effects; or, which is a matter of the highest importance, it has not been followed by prompt and adequate support.

62. It must here be noticed, that although this constituted by far the most important part of the

course, yet, it was equally essential, that on the discontinuance of the Calomel, the Opium should be still employed, subject only to the same limitations and restrictions, as have been heretofore prescribed; and that it should be promptly assisted, as occasion required, not only by the exciting articles, which have been already mentioned, but by Ammonia, Æther, or Phosphorus, together with repeated small epispastics upon the extremities, and above all, by a regular, continued, and free use of the decoction and tincture of Cinchona, conjoined with aromatics.

63. In a regular case, where this Mercurial plan was thoroughly put into execution, the secondary and latter stages of the disease were usually so mild, as to require but little else than Opium, and preparations of Cinchona. It must be noticed, that Cinchona in substance, is *always* too bulky and heavy an article, to be safely administered, in *any* disease, with such an irritable stomach.

When the bowels were torpid in the latter stages of a case, enemata were generally sufficient; but where laxatives were absolutely necessary, Castor-oil, Sublimed Sulphur, Carbonate of Magnesia, &c. were most proper. One drastic evacuation would sometimes sink the patient irretrievably.

A greater or less degree of *coma*, was not uncommon in the latter stages, even of the most favourable cases. Under such a circumstance, it was ne-

cessary to beware how we suspended or diminished the Opium; for this symptom was much more troublesome, where this article had been feebly, or not at all employed. Indeed, Opium and epispastics were almost specifics in mitigating and obviating this symptom. I wish to enforce this point, as the coma of typhoid diseases is so often mistaken for the stupor of Opium, and as the strongest testimony is scarcely sufficient, to make any impression on the minds of the timid, the desultory, and the skeptical, who have no principles or system to guide them, and who never make observations with sufficient accuracy, to gain any true experience.

64. The foregoing remarks are intended to apply to the regular cases. The misfortune was, that we were ever liable to meet with irregularities; occasionally without any obvious cause, but much more frequently from mis-management, which compelled a variation in practice, and which were often very embarrassing, and even uncontrollable. The disease sometimes began with diarrhœa, or this symptom most generally followed injudicious, and drastic vomiting, and purging with Antimonials, or neutral salts. In such cases, we were commonly debarred the use of Calomel, to any efficient extent; for under the use of as much Opium as the general symptoms required, or as the patient could bear, without the production of continual soporific effects, even a few grains of Calo-

mel would usually pass directly through the alimentary canal, and increase both the irritation and the exhaustion. Under such circumstances, our chief reliance was placed upon Epispastics, Opium, Alcohol, Capsicum, &c. &c. Here, even Cinchona was very liable to coincide with, and increase the tendency to diarrhœa; but if this inconvenience could, by any means, be obviated, it was to be sedulously employed.

65. It is to be observed, that success was not to be expected, from the most thorough adoption of a *part* of this course merely. Such a free use of Calomel, without a proportional quantity of Opium, and without the aid of epispastics, and in some instances, without that of Alcohol, and other exciting agents, would have been worse than nothing, even in the early stages; and although the first three or four days did, in fact, require much the most important part of the course, yet the subsequent support was indispensably necessary to the recovery of the patient. The use of Calomel in the latter stages, under the vague and indefinite ideas, that it would prove alterative, or operate as a stimulant, somewhat in the same manner as the mineral and vegetable tonics, or as the diffusible excitants, was deemed too absurd, to merit trial. It is evident, that Calomel can never be proper as a counter-agent, in *any* severe febrile disease, after the early stages.

66. Whenever there occur, in our climate, diseases so rapid and severe, we must resort to Herculean practice, or lose all chance of success. The majority of our Fevers are usually so slow in their access and progress, that when we occasionally meet with one of these quick and violent cases, we commonly waste the only time for accomplishing any thing, in hesitation and deliberation, and are seldom prepared to act with any decision, till the latter stages of the complaint, when energy becomes impotent, for want of suitable preparation, and from the accumulated violence of the case. Indeed, energetic practice, when adopted at a *wrong stage*, almost infallibly does injury, and at best, is more likely to accelerate, than to retard the fate of the patient.

67. Here, I would again inculcate, that this plan, in order to insure success, must be taken as *a whole*—that one part without the other, would be likely to be worse than nothing.

68. There can be but little doubt, that a sufficiently prompt and energetic employment of medicine, often removes diseases, that have been hitherto considered as incurable; but it is, at the same time, a lamentable fact, that even the most successful cases of any violent disease, treated in this way, it is probable, are but rarely given to the public, as there are always cavillers enough, who are ever ready to pervert and distort any such statement, so that *with us*, it is

much less injurious to the reputation and business of a practitioner, to lose ten patients, than to cure one, so much out of the ordinary course.

69. It will be sufficiently obvious, that the foregoing plan of treatment applies to the severer cases. Surely, the practitioner that can manage such cases with success, will be able to modify and adapt his course to the variations, both in kind and degree, of the milder; but still, even in these, or in barely a suspected case, a more prompt and decisive employment of Calomel, at the access, than might otherwise be necessary, ought to be adopted; as it can be attended with no permanent disadvantage, or even material inconvenience, and as a deficiency at this time, is afterwards irreparable.

70. I have heretofore observed, that as respects degree, this disease *among us*, is peculiarly variable; but as respects kind, it is much more uniform, than our ordinary Fevers. A few of the slightest cases might possibly have recovered without any medication at all, or even in defiance of the most injudicious and absurd practice. Those which were severer, never recovered, either spontaneously, or under bad management, except obviously upon the principle of counter-impression, mentioned in the remarks upon bleeding.

71. This method of treatment may perhaps, at the present day, seem to require some other justification, than *my* individual observation and experience.

Did my plan permit, I think there could be no difficulty in establishing its superiority, even from the writings of those, who strenuously inculcate an opposite method. It would be curious to collect facts upon this subject, especially in reference to bleeding, vomiting, purging, and sweating, in Yellow-fever. I am confident, that the details of real private practice, independent of all theory and colouring, would lead to conclusions very different from what are commonly drawn, by the most popular writers. Many of those, whose pathological notions lead them to insist, in the most strenuous manner, on bleeding for instance, are found, on examination of their actual practice, scarcely to employ it, with one tenth of their patients; and when they do adopt it, it is by no means with very flattering results. Such writers and practitioners lay down the real *exceptions*, as the general *rule;* and in the detail of their cases, they exert all their ingenuity, to invent plausible reasons for the omission of it, in one individual case after another. Facts, in support of these assertions, might be multiplied to an almost unlimited extent, from the voluminous writings of late authors, upon this hackneyed subject; but for my present purpose, I shall select the account of this disease, as it occurred in Savannah, the same season that it existed in Middletown. The ingenious reporter seems to be a disciple of the modern indiscriminately antiphlogistic school, and is

said to be a man of high professional merit. His free remarks seem to have been extorted by a mortality almost unparalleled in the annals of medicine.

72. He first asserts, that as the disease was evidently inflammatory, none but remedies which belong to the class of antiphlogistic agents could be proper, and that all stimulant substances were hurtful, or aggravating: and of course, he informs us, that he did not succeed with stimulants in a single instance. His practice at the commencement of the epidemic was bleeding, followed by active purging, blisters, and Calomel. Of the bleeding, however, even in the cases in which he considered it as the most clearly indicated, he observes, that from his own experience, "*it is always a dangerous remedy.*" He adds, "*it is nonsense for theorists to talk of oppression in the circulation, and of the rising of the pulse by the abstraction of blood.*" "*When the pulse appears to be weak in this disease,*" he affirms, "*it is reality and not disguise.*" "*Bleed, and it sinks, but never rises.*" He supposes, "*the foundation of a free use of this remedy consists in an idea, that inflammation is constituted merely of too much excitement, and that it is to be promptly relieved, by reducing that excitement.*" "*But,*" he continues, "*there is something more in inflammation, than mere excitement; there is a morbid action, that will remain after the reduction of the circulation to any degree below natu-*

ral; so that although it is perceptible, that the superfluous excitement is gone, the disease is not cured. The patient being placed in these circumstances, has still, not only to contend with the disease, but he is rendered less able to do so, and indeed has debility to combat, in addition to his other misfortune." "*Stimulating medicines,*" he again says, "*aggravate the evil, but those of an opposite character cannot reduce it.*" Blisters, he considers as incapable of "*diverting*" *it;* but on the whole, he is of opinion, that Calomel, when given at the access is the most valuable remedy known; yet, *when the disease is rapid, and inflammation comes early,* he thinks it *a most improper medicine, and altogether inadmissible, as it then runs off by the bowels, and aggravates all the symptoms!!* Emetics and drastic cathartics, and sudorifics, he asserts, were either useless or hurtful, as they commonly augmented the disease, produced debility, and accelerated the final stages. Antimony and Ipecacuanha, as diaphoretics, harassed the stomach, without producing any counterbalancing benefit. Cold water externally, he recommends very highly; but in one instance, in which he mentions employing it, it is stated not to have done so much good as was expected. In another case, the patient shuddered at the bare mention of it, and when he was placed in the position to receive the water, he was seized with a convulsive rigor, and

chills continued afterwards till death, without leaving any farther room for the application of the remedy; though the writer still thinks, that what trial he made, was sufficient to inspire him, with the utmost confidence in the measure!

73. The author adds, that "it is in vain for those at a distance from the scene of action, to talk of blood-letting, Calomel purges, Mercury as a salivant, of saline cathartics, of demulcents, of emetics, or of stimulants." "They, and all the present Materia-medica, are as ineffectual as a Bullrush against the Nile." The ultimate practice, which it seems he adopted toward the close of the epidemic, was principally Castor-oil as a laxative, Lime-water and milk, vegetable acids, and Arrow-root; but although this method might have been preferable to the other, he seems to be but little satisfied with it, and for sufficient reason; for, he states the mortality, this season, to have been at least *one in five out of the whole population*, whereas, in the year 1793, it was only one in ten, in Philadelphia. Where shall we find a parallel to this?

74. In a Bilious-Remittent of the East-Indies, treated by Mr. Wade Shields, of which a history is given by Dr. James Johnson, in his work on tropical climates—a disease considered by many who are inclined to *unitarianism* in nosology, as a mere variety of Yellow-fever, and a disease which must in-

deed be admitted to have been equally violent and malignant—out of a hundred and fifty cases, every patient was most palpably saved, by a very early, free, and continued use of Calomel. From the details of the writer, it appears, that the patients were uniformly better or worse, precisely in proportion to the liberal use, or sparing employment, of this article. In conjunction with the Calomel, Antimony, neutral-salts, and vegetable acids were indeed employed, but as appears to *me*, without any evidence of the least benefit. Not a single symptom, that was really sthenic, or actively inflammatory, is specified as attending these cases; and yet, so theory-mad is Dr. Johnson, as to be very much dissatisfied with the deficiency of bleeding. In one instance only in which it was tried, and as Mr. Shields thought without benefit, Dr. Johnson accounts for its failure, upon the supposition, that it was not pushed *ad deliquium!* To be sure, the patient *sometimes* dies* in the fainting fit so produced, but the occurrence is said not to be frequent! Dr. Johnson does not pretend to specify any thing approximating to similar success from his own method, though after his profuse depletion, and drastic purging, *he* likewise uses Calomel, with equal energy and freedom; but this deficiency of proof, from actual experiment, he sup-

* See Armstrong on Typhus.

plies by abundance of theory. Dr. Johnson has, however, the candour to tell us, that himself, and three other Surgeons, are the only practitioners in India, who think bleeding useful, in the fevers of that climate. This he acknowledges, is a small band, when opposed to the host of anti-phlebotomists;—but this host, he considers, as deterred from it, by the "*current of prejudice!*" Dr. Johnson bears his testimony, in the most decided manner, against emetics.

75. The same absurdities may be observed, in most of the late treatises upon Typhus and Pneumonia-typhodes. Although Armstrong, in general, urges bleeding so indiscriminately, and occupies so many pages, in his theoretical enforcement of it; yet we learn, by the bye, and from a few sentences only, out of his large work, that this practice is most commonly inadmissible in London.

Dr. Welsh, a late advocate for *indiscriminate bleeding* in fevers, tells us, that "*large bleedings as they are called, viz. from thirty to forty ounces, are still viewed with rooted aversion, by the greater part of practitioners; and that throughout Great-Britain, the plan has still a majority of the most eminent medical practitioners evidently opposed to it, as well as those who look to experience, and a kind of universal consent of the profession, for authority.*"

76. Dr. Mann in America, insists strenuously, upon the necessity and importance of bleeding in

Pneumonia-typhodes, and expatiates abundantly, on the comparative advantage of such practice; yet when he comes to specification, we find from his own statement in a particular epidemic, in which he considers the superiority of his plan as absolutely demonstrated, that out of sixty cases in one town, he bled only in seven.

77. The truth is, as desultory and as destitute of foundation in sound principle, as the *fashionable* practice of late writers *seems* to be, it is not by any means so bad, as they would fain have us suppose. Notwithstanding they labour to enforce their dogmas upon this subject, with such assiduity and zeal, common sense still prevails, and their prescriptions, at the bed-side of the patient, seem to belie their theory. Let the practitioner, who maintains, that the fevers of the present day are really inflammatory, and that our late Pneumonias are identical with the genuine old sthenic Pleurisy, treat them in the method, that was so successful twenty or thirty years ago, and what is the result! *Post mortem* examinations can do nothing towards settling whether the inflammation was sthenic or asthenic. It is believed to be capable of proof, that the experience and common sense, and consequently the practice of the great body of Physicians in Great-Britain, are opposed to this doctrine. In some parts of America, the faculty have, without doubt, gone to a greater extent with the tide raised

by a few modern writers. All the ancient landmarks seem to be swept away, and we are confounded with a jargon of theory upon the subjects of fever, inflammation, congestion, engorgement, excitement, depletion, evacuations, febrifuges, stimulants, with a *minute* pothology of tissues, membranes, &c. as absurd, and as unfounded as any thing which has disgraced the profession, since the time of Hippocrates.

78. Every accurate observer may, if he will turn his attention to the subject, find ample evidence, at the bed-side of his patient, that the *essence* of fever and inflammation, does not consist *in* increased or diminished strength of action, though it *may* exist *with* either; and that a patient labouring under either, or both of these diseases, is neither to be depleted and evacuated into health, as a general rule, nor stimulated into it; in short, that he is never to be cured, when severely sick, by any *single* process, or any *individual* class of articles, except only in those instances, in which a resolution is produced in the first stage. Nor is a mere *desultory* prescription to *present* symptoms, a whit better.

79. Judicious practice is that which is carefully adapted to *diathesis*, *type*, *stage*, and *degree*, the whole regulated by reference to the *laws of crisis*, the *specific nature of the disease*, and the *temperament* of the patient. Counteraction is the great indication; though reduction or support, according as the

case is sthenic or asthenic, may be equally necessary. One part of the process of cure, depends upon, and must regularly follow another.

80. As a matter of observation and fact, it seems clear, that Yellow-fever, Putrid-fever, Jail-fever, Nervous-fever, and all the typhoid Phlegmasiæ, Exanthemata, &c. do not necessarily require reduction, as such merely. It is first necessary to produce a *peculiar, semi-critical change*, which, in moderate cases, may indeed be accomplished in various ways; but in severe ones, it can be best done by Calomel and Opium, &c. After this change has taken place, Cinchona, Opium, Alcohol, &c. properly exhibited, are the best counter-agents, as well as supporters, in the reduced state, in which the patient is commonly found in this stage. Without this preparation, I agree, that these articles, generally, are little better than poisons; and that even suitable preparation, when not followed by these, or similar agents, does not complete the cure. Depletion, evacuations, and refrigerants, however sovereign and indispensable they may be in Synocha, and the sthenic Phlegmasiæ, Exanthemata, &c. rarely, if ever, produce that favourable semi-critical change, which I have heretofore mentioned as so necessary; and consequently, there is no wonder, that Cinchona, Alcohol, &c. disagree, and aggravate the symptoms, after their use. As a matter of experience, I have the most abundant

reason to believe, that generally, in bad cases of Typhus, which are attended with a hot and dry skin, Antimony, neutral salts, vegetable acids, &c. *increase* the heat and dryness, as well as the restlessness and *irritation;* and that in cold cases attended with morbid perspiration, they in the same manner *coincide* with, and *augment* these symptoms. Upon this subject, the sentiment of Boerhaave deserves to be engraved upon the memory. "*Nullum ego cognosco remedium,*" says he, "*nisi quod tempestivo usu fiat tale.*" Moderate cases will finally recover under almost any treatment, however absurd; but the analogy from the severer to the milder, as respects the *juvantia* and *lædentia*, is complete.

This method, it will be seen, is very far from Brunonianism, by which name, I am aware that it has been stigmatized, by those who have not the capacity, or will not take the trouble to understand it; and by those who are too indolent, or too prejudiced, to give it a fair trial in practice.

80. In such a cursory sketch, I do not pretend to mention the various modifications of the general plan, which circumstances may require, nor the importance of regimen, and the obviation of particular unessential symptoms, which frequently occur. These must all have their due attention.

I would not be understood as supposing, that the *degree* of treatment is to be the same in all cases.

Common sense dictates, that those which are rapid, violent, and malignant, such as occur in torrid regions, require greater promptness and energy, than the more moderate. Such cases as occur in the climate of Great-Britain, demand much less efficiency; while the diseases of the United States, which seem to be intermediate, must have a corresponding modification of practice. There is scarcely a comparison between the *quantity* of medicine necessary for Yellow-fever, and that which is required for a common Nervous-fever. Here is another field for discrimination.

81. After all, though I consider Yellow-fever as not *necessarily* so mortal, yet when its great rapidity and violence, together with its occasional insidious character, are taken into the account, I would not be understood not to admit, that in all probability, it will for ever remain one of the most unmanageable and fatal diseases, to which mankind are subject. Even if an absolute specific were to be discovered, or a method were to be invented, in all cases as certain, as Cinchona in Intermittent, or Mercury in Syphilis, it is by no means certain, that application for aid would be sufficiently early, for medicine to take effect, even in the majority of the worst cases; and provided medical aid were always to be called in sufficient season, and provided the practice of physic were to be carried to its highest perfection, still, so long as it is a

part of the scheme of providence, that man shall continue mortal, it is probable, that epidemic diseases will ever be a great instrument, in producing this mortality. It is not unreasonable to suppose, that many of the most *sinking* cases of typhoid diseases, are in their nature incurable. The patient will often be actually dying, before he is perceived to be seriously under the influence of the malady. But as it can never be known *a priori*, what cases are thus incurable, we are in duty bound to act upon that principle of the Law, which teaches, that *there is a remedy for every wrong*; and it is demonstrable, that the practice which results from correct principle, and true analogy, and is regulated by sound judgment, will much oftener be crowned with success, than might be apprehended. The principal part of the *necessarily* mortal cases, it is most likely, will be always found to result from low typhoid diseases; such as Plague, Yellow-fever, the Remittent and Cholera of the Indies, Jail-fever, Nervous-fever, Spotted-fever, Cynanche-maligna, Pneumonia-typhodes, Dysentery, &c.

82. I am aware that popular, and even professional prejudices are often very strong, against the employment of Mercury. Upon this subject, I can add my testimony, that I *never* knew any serious ill effects result from its use, in *acute* diseases, by regular practitioners. Ptyalism is the greatest evil, that I

have ever witnessed, and even this has but rarely fallen under my observation. Three cases are the utmost, that have ever happened among my own patients. It is probable, that the prejudices in question, have often arisen from the abuse of Mercury in chronic diseases, in the hands of empirics, and occasionally from the inattention (the want of *daily* watching) of regular practitioners. Another cause may perhaps be found in the circumstance, that a great majority of the chronic diseases, in which it is employed, are produced by the irregularities of the patients themselves, whose moral and other habits are so loose, that they will never submit to the restraints of the necessary regimen, and of course, never do justice to the practice. This fact must be well known to every practitioner of medicine, as all must have often met with symptoms, respecting which, it was difficult to decide, whether they were the result of mis-managed medication, or belonged to the disease. These objections, although they are urged indiscriminately by the public, by no means apply to the use of Mercury in *acute* diseases, where, in proper hands, its employment is always *limited to a few days*, or at farthest perhaps, to a single week.

83. Upon this important subject, I can say with Dr. Warren, "that no instance has ever been offered, within the whole compass of medical experience, of a medicine of equal activity, having been so thorough-

ly tested, in different countries, and in all forms and degrees, as Mercury." "If so destructive to the constitution, as some have represented, it would long since have been condemned, by the united experience of physicians, in those countries, in which it has been most exhibited." Since I am making quotations, I cannot forbear to add the remarks of Pearson, on the same subject. "Men may amuse themselves," says he, "by declaiming against Mercury, as an uncertain remedy; they may utter querulous details of its baneful effects, and relate tragical stories of its malignant influence, on the bodies and minds of those who use it; but surely all this turbulent eloquence, may be directed with equal propriety, not only against every potent article of the Materia-medica, but even against the very aliment by which we are sustained."

84. The cases (which will be reported in the third Essay) belonged exclusively to the season of 1820, which, contrary to what is usual, were generally attended either with a spontaneous, or factitious diarrhœa. Those which proved fatal, were as strikingly characterized, as any that we have been in the habit of seeing; but those which recovered, were in general, not as strongly marked, after their commencing stage, as many of the favourable cases of preceding years. One of the principal reasons for this, was unquestionably the decision and prompt-

ness of the practice, during the three first days, which, without doubt, very materially changed, and improved the subsequent appearance of the cases.

85. The whole number of decided cases, that went through a regular course, this season, was fifteen, besides three or four, which there was good reason to think, were broken up in the forming stage.* Out of this number, eleven were seized within the limits of the City, and went through the disease there, and four were attacked at the Upper-Houses, three of which remained there during their sickness. The two, which were removed from the places where the disease commenced, went to the south part of the town. Ten of these persons were the patients of the writer of this sketch, and he likewise saw three of the others. Three were the patients of Dr. Fuller of Wethersfield, one of Dr. Tracy, and one of Dr. Gilbert of this place. Nine of the cases were seen in consultation by Dr. Miner of Middletown, and one by Dr. Todd of Hartford.

* Note.—Although the able report of Dr. Beck was perfectly correct, in every essential particular, yet the two cases to which he refers, as not being Yellow-fever, were in fact such; as will be seen by the detail of their course and progress. The prompt and efficient treatment which was adopted, without doubt, so *modified* them, that no man, on a single visit, could have decided with certainty, respecting their specific character.

Beside the cases hereafter detailed, it is well known, that among those who had either direct or indirect intercourse with the Sea-Island, at other places on the river, there occurred between twelve and twenty instances of the same disease, of which, at least *as many* died, as with us; though probably, from the circumstances, that in no other case, so many were attended by one physician, and that they happened at greater distances of place, and longer intervals of time, much less impression was made upon the feelings of the public, or the attention of medical men.

86. It is a fact worthy of remark, that in times of public calamity, all the unruly passions of human nature, are generally brought into action. This is peculiarly the case, during the prevalence of new, rare, or malignant diseases. The uniform popular opposition to the idea of the very existence of such diseases, and the obloquy heaped upon those, who have the honesty and fortitude to declare it, which has occurred at various times, and in various parts of the world, is well known. It is an historical fact, that on the first appearance of the Plague in Marseilles, in 1720, the physicians were afraid to declare it. At last, three of the medical faculty ventured to name the disease, and were, in consequence, insulted by the rabble; and the magistrates, from apprehension of injury to *the trade* of the City, were equally offend-

ed at the declaration; so that at last, when a large number were taken sick in a single street, the physicians did not dare to make it known, but assigned any reason, rather than the true one, for the fact. The same spirit prevailed at an earlier period. In the dreadful pestilence at Naples, in 1656, the physicians, even then, were afraid to name the disease, and only gave it the vague denomination of a malignant Fever. One, however, of more firmness and intrepidity than the rest, dared to call it by its true name, and in the words of an author, "*was imprisoned by the Viceroy, for his audacity, because he apprehended, the report might injure the* BUSINESS *and* REPUTATION *of the City.*" In this very year, 1820, a still stronger case occurred at Manilla in the Philippines. It appears, that the deluded inhabitants were induced to ascribe the malignant Cholera, then epidemic among them, to a poisoning of the waters upon the mountains by foreigners, and were so infatuated in consequence, as to attempt to massacre all the strangers among them. It is well known, that several American seamen belonging to the United States' Frigate Congress, then in those waters, were barbarously sacrificed, upon this occasion.

87. I shall make no mention of occurrences on the appearance of Yellow-fever in New-York, Philadelphia, Savannah, and other Southern Cities, nor even in New-Haven, as they must be fresh in the

minds of physicians. The disgraceful conduct, which took place in Hartford, in the year 1809, during the prevalence of Spotted-fever, can never be forgotten, especially by those who were loaded with abuse, for the exercise of integrity, humanity, and the highest professional skill.

It will be sufficient to state, without going into particulars, that the same scenes were re-acted in Middletown, upon the occurrence of the disease, which is the subject of these remarks; and the same scenes are probably always to be expected, upon similar occasions, so long as avarice shall predominate over a sense of public good, and private interest take precedence of humanity. The general interest and *convenience* of the *Custom-House* and its dependencies, and of the commercial and trading part of the community, will probably always be a powerful bar, to the adoption and execution of any effectual measures, for the prevention of the spread of malignant diseases, whether domestic or imported, and even to the timely knowledge of their existence.

So long as it is the supposed interest of commercial and trading people, to conceal the existence of malignant and pestilential diseases, or to attribute them to domestic, rather than to foreign origin, very little dependence is *ever* to be placed upon the testimony of this class of our citizens, however honest they may be in other respects, in the decision of

any question, which involves these points. The accounts given by persons belonging to the Sea-Island, *after* there was considerable public excitement respecting the Fever of Middletown, varied very materially from those, which were made previously. The same remarks will, I fear, generally apply to *reports of health*, published at such times. Within three days from the deaths of Child, Simmons, and Cotton, a certificate was published in Middletown, signed by the Mayor, and many of the principal citizens, declaring that the City was in perfect health, and that no malignant disease existed in it; while it was *universally* known, that Johnson and Roberts were sick, and that the event of their recovery, was far enough from certain. The subterfuge, that these cases had not then been reported, was but a mere quibble; as in so small a place, and in such a period of alarm, it could not fail of being well known to every adult within the limits of the corporation. Besides, there existed at the very time, a *more* than suspicious case, among the domestics of one of the principal signers of the certificate in question. That this case was broken up, by the most prompt and vigorous practice, is no excuse for such a statement. I speak with confidence respecting this certificate, as to my own personal knowledge, two of the gentlemen who signed it, had previously conversed with physicians, who had visited the cases then in existence, and another gen-

tleman, on application being made to him, at first refused to lend his name, on account of these cases.

Even the reports of physicians upon this subject, when they *concur* with the prejudices, interests, and passions of their employers, should always be received with caution. How many of the medical faculty are so base as to prefer their own reputations and interests, to the lives of their fellow citizens! I cannot forbear adding the words of Dr. Rush. "What oceans of falsehood have issued from the members of our profession, upon the subject of pestilential epidemics, in all ages and countries! How many false names have been given to them, to conceal their existence! In England, the Plague of 1664, was called for several months, by the less alarming name of a Spotted-fever. In the United States, the Yellow-fever is deprived for a while of the terror it ought to produce, in order to its being avoided or cured, by receiving the name of a common Remittent, or by being ascribed to intemperance, or to some cause, which only *excited* it into action."

88. It is however an incontrovertible principle, that the public always has a right to the most explicit and full information, respecting the state of health in any place; and fortunately, the impracticability of concealment, for any length of time, is as absolute, as the right of the public to the information.

ESSAY II.

YELLOW-FEVER IN CHATHAM, IN 1796, AND ITS ORIGIN.

1. In large maritime Cities, where there is free and constant intercourse with foreign ports, where of necessity, there are great accumulations of filth from various causes, and where so small a proportion of the inhabitants are personally acquainted, it must always be attended with considerable difficulty, to ascertain with precision, what pestilential diseases are of foreign origin, and what are domestic; but in small towns and country villages, where there is but little intercourse with strangers, where there are no local causes of disease, and where the inhabitants are all known to each other, and acquainted with each other's concerns, there can be no difficulty in settling questions of this sort, with sufficient certainty, to satisfy every rational mind. Under such circumstances, there can be no variation in sentiment, except with the few, who imagine that they cannot be independent, unless they differ in opinion from the great majority of men of common sense. With such persons, argu-

ments are useless, and the strongest proof produces no conviction. Under these impressions, I have always believed, that the casual occurrence of Yellow-fever in the small and healthy ports of New-England, particularly of those on the river Connecticut, affords the most incontrovertible evidence of its southern origin and importation, that is perhaps to be found in the whole world. In these places, Intermittents and Bilious-remittents, the endemics of tropical climates, are unknown, except in a few instances in persons, who have recently arrived from places, where such diseases prevail. Indeed, we have no disease, that could possibly be suspected of being Yellow-fever, except a few sporadic cases of Putrid-fever, which none could mistake, but the superficial, or those, whose theoretical notions lead to such a generalization, as confounds all distinctions of species in disease. The circumstances of the occurrence of Yellow-fever in a neighbouring town upon this river, it is believed will fully justify these remarks, the history of which, I shall make no apology for giving, as I believe, no account of it has ever been published; not having noticed any reference to the facts, in the controversy upon the great question of the origin of Yellow-fever.

2. The village of Knowles's Landing, a part of the parish of Middle-Haddam, in the town of Chatham, is situated on an uneven, irregular, and rather steep declivity, on the east bank of the Connecticut.

about six miles below Middletown. At the period referred to, it must have contained about thirty houses, and nearly two hundred inhabitants; and it was then, as it now is, remarkable for its salubrity and exemption, both from endemic and epidemic diseases. At that time, its inhabitants usually employed two or three vessels, in the West-India trade.

3. In the month of August, 1796, during the prevalence of the usual general health, in the village and the adjacent country, when neither simple Fevers, Dysenteries, nor Choleras, had any existence in that quarter, and when there was nothing peculiar in the weather, unless perhaps it might have been considered as rather warmer and dryer than usual,* the Brig Polly, Russel Doan master, owned by Bulkley and Doan, arrived from Cape St. Nicholas Mole. Her outward cargo consisted of Oats and other grain, which was sold for cash; so that she returned merely in ballast, and in as cleanly a state, as such vessels usually are, after a voyage. On her homeward passage, Mayhew Tupper, one of her crew, died on board with Yellow-fever. The clothes which he wore while sick, were thrown overboard, though a sail upon which he lay, when he died, was retained. The vessel afterwards underwent a sailors'

* This season is well remembered to have been a remarkably fine one. The subsequent autumn and winter were uncommonly dry, and equally healthy, in Connecticut.

washing, which, in this instance, consisted in scrubbing with cold sea-water, and the subsequent application of vinegar.

4. On the arrival of the Brig at this Landing, Newel Hurd, a young man of about eighteen years of age, and John Ranney, were employed to assist in clearing her out. They were known to handle the sail on which Tupper died. At the same time, Sarah Exton, wife of one of the crew, and Elizabeth Cook, who lived in the same house, were employed in washing some of the sailors' clothes. A few days afterwards, these four persons were attacked with Yellow-fever. In about five days, viz. on the 29th of August, 1796, Hurd died, and within twelve hours, Ranney and Sarah Exton. The alarm in the village was already so great, that Sarah Exton was left alone in the night, and was found dead in the morning, with her infant child at the breast. Elizabeth Cook was soon added to the number of victims; and in quick succession, the infant child of Sarah Exton, together with Lucinda Norton, a Tailoress, and member of the same family, who had been employed in mending some of the sailors' clothes, and Elizabeth and Rebecca Carey, daughters of Elizabeth Cook, who were immediately taken sick, and survived but a few days.

5. The whole of these cases commenced and terminated within the period of a fortnight. Some-

time during their existence, Gershom Lord, who acted in the capacity of clerk to one of the owners of the vessel, and who had been on board of her, but had had no intercourse with the sick on shore, was taken with the same disease, and after a short, but severe illness, recovered.

6. Beside this, there were two or three other, either imaginary, or at most, light cases, among those who had intercourse with the vessel, which soon recovered.

7. Sometime while the Brig was lying at this Landing, but whether during the existence of any of the other cases, or subsequently, I have not ascertained, two young men, sons of William Dixon Esq. of the town of Chatham, who resided about seven miles above, passing along the river in a boat, in the night, hauled along side the Brig, and slept till morning in her cabin, which they found open. Soon after they reached their father's house, both sickened with Yellow-fever, and one died, but the other recovered.

8. So unaccustomed were the inhabitants to such a rapid and fatal disease, that the whole village was panic-struck. After the three first deaths, Dr. Bradford, an old physician resident in the place, and Drs. Hollister and Thacher, two young men who were candidates for business, departed precipitately, and did not return till all traces of the disease had disap-

peared; and so many other persons followed their example, that only five had firmness and humanity sufficient, to remain and take care of the sick, and bury the dead.

9. To the principal individual of this small band of Philanthropists, Ralph Smith Esq. I am chiefly indebted for the foregoing facts. They have, however, been confirmed in detail by Mr. Nathaniel Doan, brother of one of the owners of the Brig.

10. I do not attempt to particularize the symptoms of the disease, as there was never the least question with respect to its nature. Mr. Smith had frequently been in the West-Indies, and had had opportunity to see much of Yellow-fever, and there were other sea-faring men who were able to identify it with the scourge of the tropics.

11. The physicians who attended the latter cases, were Dr. William Brenton Hall, of Middletown, and Dr. John Richmond, of the neighbouring parish of East-Hampton, in Chatham. They are neither of them now living, but it is universally known, that they had no doubts upon the subject; nor among those at all acquainted with the facts, was there ever a question respecting its origin.

12. Thus it appears, that from this single vessel, there originated unequivocally, eleven cases of Yellow-fever in the town of Chatham, nine of which died—as adequate a number to prove the importa-

tion of the disease, as if it had been eleven thousand —a fact in this point of view as irresistible, as any on the records of medicine.

13. I have elsewhere stated, that there has been scarcely a season, for the last twenty-five years, in which individual instances of Yellow-fever have not occurred on the river; though the greatest number that has happened at any one time, has existed at Hartford, Middletown, and Knowles's Landing; and with the exception of a few theorists, there never has been a reasonable doubt of its foreign origin. *With us*, it is usually much more difficult to trace the Small-Pox to any evident source, than it has hitherto been, to account satisfactorily for the introduction of Yellow-fever.

It will of course be understood, that I do not mean to include in this remark, those rare sporadic cases of disease, which are occasionally produced in particular seasons, by foul cellars, and decaying vegetables of the Cruciferous tribe, such as putrid Cabbages, &c. That these instances are as malignant, as rapid, and as deadly, as Yellow-fever, I make not the least question; and if we may credit common reports, have been sometimes attended with a yellow skin; but they are nevertheless, upon every principle of discrimination, adopted in other cases, to be considered as essentially distinct, since they lack all the true pathognomonic symptoms, and are

in all probability only more violent, and rather anomalous cases of genuine Putrid-fever.

14. In the preceding remarks, I have omitted the subject of the communication of the disease, from one individual to another on shore. In this part of the country, such an occurrence is extremely rare. No *decided* instance of this sort, has ever fallen under *my* observation, except in Middletown, in 1820. It is believed, that the cases at Knowles's Landing, are all to be accounted for in some other way, except perhaps that of the infant child.

15. I cannot forbear adding one circumstance still farther, in evidence of the salubrity of the situations, and the great degree of health of the towns upon the river Connecticut; this is the well known fact, that of all that are born, one sixth, or at the very farthest, one seventh, survive the age of seventy years.

16. Any person, who can theorize out clearly and incontestably the domestic origin of this fever in Chatham, will, by doing it, confer an obligation upon the world, and deserve to have his name enrolled with Harvey, Jenner, and the other benefactors of mankind.

ESSAY III.

CASES OF YELLOW-FEVER IN MIDDLETOWN, 1820.

Observation.

It is always the duty of a physician, in the history either of cases or epidemics, to detail the symptoms of the disease, the medicines employed, the subsequent changes, and the ultimate results, with such minuteness, as to enable his professional readers to judge for themselves, respecting the propriety of his conclusions.

It is believed, that this is accomplished in the general narrative of the Fever of 1820.

It will, however, be readily observed, that in several of the worst of the subsequent cases, there was so much irregularity, so much previous injudicious tampering with medicine, and so much delay in calling medical aid, that there was neither time nor opportunity for the proper execution of any plan of treatment. After public alarm had been excited, the physician was called so early, as to be able at the very access, to disarm the disease of most of its

terrors and violence. Cases might be mentioned, that are not here reported, in which there was good reason to consider the disease, as absolutely arrested in its forming stage. Of all the *fatal* cases, there was but one of *my* patients (Rhoda Clark) in which there was an opportunity to attempt any thing, farther than a bare *palliation* of individual symptoms. In years past, there were seldom the same irregularities, there was usually much less tampering with medicine, and though the physician was not generally called during the forming stage, yet he was commonly applied to, immediately after the developement of the disease. From these circumstances, the method of management had, for the most part, a very fair trial, and very rarely failed of being crowned with success.

The record of former cases is not now in my possession; but the character of the disease, and the effects of the medication, are distinctly remembered, both by myself and friends.

For these obvious reasons, much minuteness respecting the treatment of the cases of 1820, would have been both tedious and unnecessary.

CASE I.

1. The first case which occurred, was that of Oren Fargo, a sailor, who, about the 18th of April,

left Middletown for New-York, in the Sloop Antelope, a common coaster, D. H. Vail, Master. From New-York, Fargo sailed to Savannah in the Schooner Milo, a regular packet, in which he again returned to New-York, about the 25th of May.

It appears, that the disease, which subsequently made such ravages in Savannah, had begun previous to, or about this time.

The Schooner, on her return, is said to have lain at a wharf between Coffee-house-slip and Fly-Market, where, on the evening of the 27th, Fargo was first taken ill, in consequence, as he supposed, of some over-exertion on that day, in unloading the Milo.

During the time that Fargo was on the voyage to Savannah, Capt. Vail made one trip into the river Connecticut, and returned to New-York. On the 29th of May, Fargo visited the Antelope, and on the 30th, came on board, for the purpose of going back to Middletown.

2. It may be well to state, that the Antelope, while in New-York, lay first in Burling-slip, but that on the 30th, she hauled to Coenties-slip, for the purpose of taking in some Rye, where, however, she continued only one day, returning again to Burling-slip, in which she continued, in the whole, about a fortnight.

On inquiring of Capt. Vail, whether any vessels from foreign ports lay in his vicinity, he at first

thought there were none; but on farther consideration, he recollected one from the West-Indies, with considerable fruit on board, where he thinks Fargo had been. He was not sufficiently positive, however, to warrant any very certain conclusions on this point.

On the 3d of June, Fargo reached Middletown, after two days passage from New-York. He was immediately carried ashore, to the house of Jotham Johnson on Water-street, nearly equally distant from the eastern ends of Court-street, and Center-street.

3. On being called to attend Fargo, I ascertained, that on the Saturday previous, 27th of May, he was attacked with severe chills, and pain in the head and back, with vertigo, and sense of distress across the region of the stomach; that these symptoms, in some measure, subsided after about twenty-four hours, when he remained dull, languid, and indisposed for motion. The distress and load across the stomach still continuing, he applied to a physician, who gave him, as he said, a bitter medicine (I suppose a cathartic) which operated powerfully upon the bowels, and left a troublesome diarrhœa.

Capt. Vail stated, that when he came aboard the Antelope, in his eyes and general appearance, he resembled a man just recovering from a debauch. He was reported, however, to have been a temperate man, and guilty of no known irregularities while in New-

York. He was able to walk about, till he arrived at Middletown.

4. At this time, he had a cool, moist, tawny skin, weak soft pulse, red tongue, dull, watery, tumid eyes, the conjunctiva quite yellow, irregular and frequent tremors without any sense of cold, severe distress about the epigastrium, great irritability of the stomach, and subsequently in the latter stages, rejection of a watery or gelatinous matter, with a brown sediment; torpor and insensibility attended for the last twenty-four hours, with alternate delirium and coma, together with a very sallow hue of the skin, which symptoms, in the aggregate, sufficiently characterized the case. On the 7th of June, which was the eleventh day of the disease, he died.

5. As this patient had medical attendance only the three last days, no attempt was made at any thing, farther than a bare palliation of the existing symptoms, which was accomplished with tolerable success, by epispastics, Opium, and diffusible excitants.

CASE II.

6. The second case was that of Daniel Hamilton Vail, master of the Antelope, in which Fargo was passenger.

As early as the 1st of June, he began to feel languor, slight vertigo, moderate load and distress at the

stomach, accompanied with slight nausea. These symptoms, however, were not sufficient in degree to prevent attendance upon ordinary business, without material inconvenience. On the night of the 3d, he took a cathartic of Sulphate of Soda, which by morning operated drastically. On the 4th which was Sunday, he attended church, not only during the day, but likewise in the evening. At this time, he was attacked with distinct and prominent rigors, severe pain in the head not referable to any particular part of it, but accompanied with vertigo and heaviness, intense pain likewise in the loins, sense of load and distress about the region of the stomach, with vomiting and diarrhœa, the whole soon followed by that peculiar remission, which so generally marks the termination of the first stage.

7. From Monday morning till the subsequent Sunday, the peculiar dull appearance of the eyes, the cool and moist state of the skin, the weak, soft, and slow pulse, the variable state of the tongue, the tremors without sense of cold, but more especially the load and tenderness across the epigastrium, and the irritability of the stomach, continued with very little variation. During this time, Capt. Vail frequently remarked, that with the exception of the two last mentioned symptoms, he scarcely felt any sensible disease while lying still in bed; though on attempting to sit up, to take food, &c. he found no difficulty in realizing his true situation.

8. During the second week, he was, on the whole, very evidently better than on the first, the disease having lost its most obvious peculiarities; but he did not begin to recover appetite or strength, till after the fourteenth day. There was never any prominent crisis, yet after this time, convalescence was obvious and rapid.

9. The case of Capt. Vail, though a mild one, apparently attended with little or no danger in any stage, and readily terminating in perfect recovery, and that of Fargo, which was so much more severe and terminated fatally, were decidedly of a similar character, and had the strongest and most unequivocal resemblance, not only to the subsequent cases which happened within a few weeks, but to cases which have occurred almost every summer, among our seamen and others, directly from some southern sickly port. Had either appeared singly, there could have been no hesitation respecting it.

10. It may be proper to remark here, that Capt. Vail's vessel is at all times peculiarly cleanly, and that he is in the habit of taking passengers occasionally. During this very trip, his wife and two other females were with him. On his return from New-York, there was but one man, beside himself and Fargo, on board. Capt. Vail resided in Ferry-street, but a few rods from its western termination at Main-street.

11. Capt. Vail's disease may be considered as lasting fourteen days. After he was able to walk about the streets, he continued to be much troubled with pain in his back and limbs. He had medical attendance in the morning immediately after his attack. As his diarrhœa could barely be kept at bay, by as much Opium as could be administered without the production of soporific effects, and as a single grain of Calomel in addition could not be restrained from producing free purging, the case was treated with epispastics, Opium, and tincture and decoction of Cinchona.

Dr. Miner saw Capt. Vail in consultation.

CASE III.

12. William Harrington, a custom-house officer, was the subject of the third case.

About the 6th of June, at Saybrook near the mouth of the river, it appears, he went on board the brig Sea-Island of Hartford, Henry Barnard, Master, immediately from St. Jago-de-Cuba. The Sea-Island had sailed for St. Bartholomews, about the 1st of December, 1819, from whence she returned to Wilmington, North-Carolina, where she took in a miscellaneous cargo of lumber, Indian-corn, flour, &c. and then returned to the West-Indies, to St. Jago-de-Cuba. While there, two of her men died of Yel-

low-fever, having been carried ashore but a few hours before death, and afterwards one, on her passage home. The whole of her crew were more or less sick, during her homeward passage.

13. Besides, from the statements of Capt. Barnard to friends in Hartford, the Sea-Island, on her arrival at the mouth of the river, was in an extremely foul and offensive state, from a quantity of putrid corn and other decomposing matters behind her ceiling. By farther information from several of her crew, we learn, that clothes and bedding, worn and used by the sick, were brought home in her, without washing, or even airing. In this condition, Harrington remained at least ten days on board.

On Saturday, the 10th of June, she came up to Middletown, and anchored between the ends of Washington and Ferry Streets. On Monday, she sent part of her cargo ashore, consisting principally of Sugar and Melasses; and about noon she weighed anchor, and proceeded a few miles up the river. While lying at Middletown, there was the freest communication between the Sea-Island and the shore; numbers of citizens, as is said, being repeatedly on board, while many of the crew spent much time on shore.

14. On Monday evening, Harrington was said to have indulged freely in drinking and smoking; but on particular inquiry, it does not appear, that he did this to any unusual degree. In the course of the

night he was taken, according to his own statement, with severe rigors, great pain in the back part of the head and loins, but especially in the legs, distressing anxiety and burning about the epigastric region, intolerable thirst, nausea and frequent retching, but without rejecting much from the stomach.

In the morning, the chills had left him, and the pain in the head was much less, so that during the day, he was able to walk about the vessel. On Wednesday morning, finding himself in much the same state as on the day previous, he took a large dose of Tartrate of Antimony from the medicine chest, which operated drastically, but produced a great aggravation, instead of alleviation, of the symptoms about the stomach, which he had hoped especially to relieve. A diarrhœa immediately followed, and the dejections were very frequent, and produced considerable exhaustion.

In this state, he continued to walk about the vessel, and even on Friday went into the hold. At this time, the Sea-Island lay in the river, between the northern part of Middletown and that district of Chatham, which is commonly known by the name of Churchill's landing. Sometime on Friday, he got aboard a coaster that was passing, and reached his own house in Middletown near the western end of Church-street, about the middle of the afternoon. Early on the following morning, which was the 17th, he died.

15. His symptoms on his arrival were, a distressing sensation in the back part of the head, which he did not describe as being pain, great aching of the limbs, a death-like sunken sensation across the epigastrium, nausea, retching, and diarrhœa. His tongue had light traces of a thin coat, which disappeared during the night, leaving it moderately red, his pulse was weak and soft, and about ninety in a minute, his eyes dull and heavy, and turgid with fluids, the conjunctiva being a deep yellow. His skin had a deep brown, sunburnt, or tawny appearance, as well on the body, as on the face; and though at first touch, it produced a very slight degree of the stinging sensation of Putrid-fever, yet it was scarcely as warm as natural; and it gave the idea of a dead body, that had been once cold, and afterwards raised by external applications to nearly the natural temperature. It was at the same time covered by a slight, clammy, viscid sweat. During the night, his pulse became as frequent as a hundred and twenty in a minute, a troublesome singultus supervened, and deep coma gradually took place, from which, however, he was very easily roused, for a few seconds at a time. After death, sanious discharges appeared at every avenue, and incipient decomposition took place speedily and rapidly.

16. Harrington was sick in the whole five days, but had only twelve hours' medication. The treat-

ment was of course merely palliative, and consisted in epispastics, Opium, and Alcohol.

CASE IV.

17. The fourth case was that of Daniel Harrington, who, while the Sea-Island lay at Middletown, spent Sunday, the 11th of June, and the succeeding night, with his father on board. Through Monday and Tuesday, this young man was languid and inactive, and apparently in a state of predisposition. On Tuesday night, his disease evidently commenced with strong agues, pain throughout the head generally, as well as in the back and limbs, considerable thirst, with a sensation of weight, and constant distress across the region of the stomach, accompanied with disposition to vomit, and occasional retching. On Wednesday morning, as these symptoms had suffered no material abatement, he took a large dose of some common cathartic, which, in the course of the day, operated powerfully, and was succeeded by much apparent relief, in every respect, except the load and distress about the epigastric region, and the disposition to vomit.

18. His friends, supposing his disease essentially subdued, called no medical aid, but from the state of the stomach, gave on Thursday, an additional cathartic. This left him with an urgent diarrhœa.

During Friday and Saturday, in consequence of his Father's return and death, very little attention was paid to his case. On the 18th, the real character of his disease became obvious. Indisposition for motion, dull, heavy, sunk eyes, distress across the stomach, thinly coated tongue, skin of a slight dingy, dirty hue, cool and moist to the touch, and of a velvet feel, pulse soft and weak, about a hundred beats in a minute, &c. constituted his symptoms.

19. After this, to the end of the first week, there was but little variation in the case. On the seventh day, there was an evident critical effort, after which the disease seemed to lose many of its peculiarities, and though it went on to the fourteenth, and reduced the patient to the borders of the grave, yet at this period, there was another critical change, after which the disease appeared to be gone. The young man, however, remained in a state of so great debility for a few days, that he seemed to balance between death and recovery, yet at last, the vigour of his constitution prevailed, and convalescence was rapid.

20. This patient, it must be observed, was sick a fortnight, and had medication eleven days. He was visited repeatedly by Dr. Miner in consultation. His treatment, in the early stages, consisted principally in a very free use of Epispastics, conjoined with Opium, the diarrhœa preventing the employment of Calomel. In the secondary stages, Alcohol, Tinc-

ture of Lytta, Cinchona, Arsenite of Potassa, Opium, &c. as circumstances seemed to require, were given with the most evident beneficial effects. The disease was severe, and the practice strong.

CASE V.

21. Samuel Knight, the subject of the fifth case, was mate of the brig Gleaner of Middletown, Enoch Hubbard master. This vessel had just returned from Santa-Cruz, was cleanly, and her crew healthy. While the Sea-Island was in the river (at what time I do not know with certainty, but probably on Monday the 12th of June) Knight was on board for a few minutes. On the Saturday morning following, which was the 17th of June, he found himself somewhat indisposed, but not in a sufficient degree to neglect business. About noon, he was attacked with smart rigors, followed by pain in the head and back, and distress across the region of the stomach, with nausea and retching, and a strong sense of general illness.

22. Early in the evening, he took a large dose of Sulphate of Soda, but feeling more ill, he soon called medical aid. At this time, the rigors had disappeared, but his symptoms were unequivocal. The heavy, dull sensation in the back part of the head, accompanied with vertigo on motion, the peculiar

distress, and sensation of load about the stomach, the nausea, the moist, though otherwise nearly natural state of the skin, the dull, turgid appearance of the eyes, the pulse preternaturally slow, and not exceeding sixty beats in a minute, all concurred to show the nature of the complaint. I had no hesitation upon the subject at my first visit, though I had then no suspicion, that he had had intercourse with the Sea-Island, but concluded, the disease was derived from some other quarter, as I was informed that he had recently arrived from sea. A large dose of Calomel was immediately administered, and accompanied with such a quantity of Opium as, I hoped, would prove sufficient to prevent any cathartic operation, for twelve hours at least, either from the Calomel or Sulphate of Soda. Soporific effects were judged to be of little consequence, in comparison with the object in view. This, with the addition of a blister to the head, and another to the stomach, constituted the medication for the night. Toward morning, there was a free motion of the bowels, and in the course of the day, the mouth gave evidence of mercurial action in the system.

During Sunday and the succeeding day, nothing but Opium and infusion of Serpentaria were employed as medicine. Through Monday the patient kept his house, but was able to walk about his room. On Tuesday he was able to go into the street, and though

an invalid for at least a week, required no special medication.

23. It may be proper to mention, that during the summer of 1819, immediately after returning from sea, Knight went through a pretty severe course of the same disease. His case was then very distinctly marked, not only at its commencement, but in every stage. The appearance of the eyes, the general expression of the countenance, the epigastric anxiety and distress, the nausea and vomiting, and a copper-coloured hue of the skin toward the close of the first week, left no room for doubt. The case, at that time, came to a crisis on the seventh day, but the patient was confined till about the fourteenth.*

The medication was Epispastics, Calomel, and Opium, with vegetable tonics, in the latter stages. A free mercurial effect was produced upon the mouth. In 1820, Knight was visited by Dr. Miner, on the Sunday after his attack.

* Although it has lately been asserted, that Yellow-fever, and even common Typhus, do not occur twice in the same subject, yet it has several times fallen to my lot to witness a second attack of the former; and as to the latter, many persons are evidently *more liable* to the disease, after once having it. I have *very often* witnessed a second attack of Typhus, and in some instances a third, and even a fourth. There could be no doubt respecting the cases to which I refer, as they were all very distinctly characterized, and without any complications. *Quæ conveniunt uni tertio, conveniunt inter se.*

His residence was near the centre of Hanover-street, which connects Union and William Streets*.

* Here it may be proper to observe, that on the morning of the 24th of June, while only the case of Daniel Harrington was known to exist, and while the writer of these remarks was, in fact, wholly ignorant of any other instance of Fever within the limits of the town, the Mayor distributed his circular to all the physicians, requesting information respecting the state of the health of the place. As the case of Samuel Knight, which was of so short continuance, was at that time deemed too inconsiderable to deserve public specification, and as no physician belonging to Middletown then had any case under his care, a report was made out accordingly, and immediately sent to the press.

In the course of the subsequent forenoon, I was called to visit Rhoda Clark, where I obtained information of the cases of John Wild and Abigail Treat, who were nearly five miles distant, in the northern extremity of the township, and under the care of Dr. Fuller of Wethersfield. On the same day, I was afterwards called to see Mrs. Lucy Bailey. None of these cases, however, were within the limits of the City, and of course, not within the jurisdiction of the Mayor, and could not therefore have been, in strict propriety, mentioned in our reply to his circular.

As it happened, the printed report above alluded to, was ultimately pretty much suppressed; not, I believe, on account of these omissions, but because certain individuals judged it inexpedient, that the *truth* should be given to the public. As one or two of the copies did however go forth, this explanation is made, to account for an apparent inconsistency between this statement, and the report in question.

CASE VI.

24. Lucy Bailey, residing on the corner of Union and Water Streets, was the next subject of this disease.

A short time before the Sea-Island got up to Middletown, Capt. Barnard preceded her, with two or three of his men. These men visited the family in which Mrs. Bailey resided, where they spent considerable time in her company. One of them at least had been recently sick, and was still rather an invalid. In addition—while the Sea-Island lay at Middletown, Phineas Ranney, one of her crew, whose mother occupied the same house, brought home his clothes to be washed, together with his bed which was of straw, and which he emptied in a barn not more than two or three rods from the house. Ranney, according to his own statement, had been sick on his homeward passage. Part of his clothes, he affirmed, had been towed along side, after his sickness, and part had not been at all cleansed; his bed, it was understood, had never been even aired. When the Sea-Island proceeded up the river, Ranney again went on board. It does not appear, that Mrs. Bailey had any thing to do with his clothes, nor is it certain, that she went into the barn, while the straw remained there.

25. On the night of Friday the 16th of June, she was

taken with sickness at stomach, followed by retching, but without rejecting any thing. After this, she had distinct and strong rigors, pain all over the head with vertigo, a general sense of soreness over the whole surface, but more especially across the epigastrium, where it was so severe as to oblige her to remain in rather a bent posture; the whole accompanied with almost unquenchable thirst.

Mrs. Bailey described these symptoms, as being entirely different from any thing, that she had ever experienced during any previous febrile disease; and although she complained, that the bed was irksome to her, yet she had a much stronger sense of indisposition than ever before, when she was able to sit up and walk about.

26. Between Saturday and Sunday, a prominent remission of most of the symptoms took place, leaving her, as she at first supposed, with no other complaint, than a less degree of anxiety and distress across the region of the stomach. With this symptom, and the addition of languor, want of appetite, and general restlessness, she remained for several days, till the supervention of a cough, and a pain in the side, induced her to apply for medical aid.

Being in haste on my first visit, and finding her able to sit up in a chair, but more especially from the circumstance, that I had before prescribed for her under the last mentioned symptoms, I passed by

her case with a very superficial examination. At this time, she had removed from the situation where the disease first commenced, and was in the family of her daughter, just without the limits of the City, over the bridge at the southern termination of Sumner-street.

27. The length of time which her illness had continued, and her situation remote from any probable connexion with shipping, prevented suspicion of the true nature of her disease, even at my two next visits. Its further course and progress, though irregular, and more particular inquiries respecting the early symptoms, rendered its real character very evident at last. A young Physician who visited her once or twice, without the least previous knowledge of the case, immediately remarked the similarity of many of her symptoms to the other cases, which had so recently occurred. Even at this late period, she was found to have a peculiar sensation in the head, very different from any thing she had ever experienced before, a sense of load and soreness across the stomach, frequent retching or disposition to vomit on swallowing any thing, slight yellowness of the conjunctiva, a thin, loose, yellow coat upon the tongue, a skin neither warm nor cool, but uniformly moist, and of a dingy hue, a weak and soft pulse, as frequent as a hundred and twenty in a minute, together with the above mentioned cough and pain in the

side. An obvious crisis took place on the fourteenth day.

The case was mild, and the treatment light—consisting of a Calomel cathartic, an epispastic to the side and stomach, Opium and Tincture of Sanguinaria, with bitter infusions and tinctures in the latter stages.

CASE VII.

28. The case of John Wild, a young man of about nineteen years of age, occurred in a Cotton Manufactory in the Upper-Houses, four or five miles northward of the City.

This establishment is situated in a pleasant healthful valley, eastward of the turnpike road from Middletown to Hartford, and about half a mile west of the river Connecticut. The manufactory had been open that season, only about seven or eight weeks; and at the time this young man was taken sick, there were but seven girls and three men employed in it. Wild himself had resided there some months.

29. On the 17th of June, which was the Saturday previous to his attack, it appeared by his own statement to another young man, that he had been on board the brig Defiance, then lying at the wharf near the Post-Office in Upper-Houses for the purpose of repair, and had been thoroughly over her,

most probably, with an indefinite idea of attempting to go to sea in her.

The Defiance belonged to Middletown, and had reached the above mentioned station the 15th of June, where she continued till the 29th. She had been to Eustatia, and had there had one severe case of Fever on board. From thence she went to the Oronoque. Her homeward cargo was melasses, hides, tallow, &c. It must be likewise recollected, that as late as Friday the 16th, the Sea-Island was lying off in the river, against the Manufactory, this being the day and place on which Harrington was removed from her. There were strong circumstantial reasons for believing, but no absolute proof, that Wild had visited the Sea-Island. He was a foreigner by birth, had of course crossed the Atlantic, and was said to be in the habit of visiting vessels from sea. Besides, the people of the place were more or less in the custom of visiting most of the vessels from the West-Indies, for the purpose of obtaining fruit, &c. &c.

30. Wild first complained of indisposition on Monday, the 19th of June. His symptoms, on his first attack, were severe pain in the head, neck, and back, accompanied with rigors. The eyes were red and dull, the stomach very irritable, with distress and tenderness in the epigastrium, which continued prominent, and increased to the very last. On Tuesday, he went out of the house, walked some distance, and

drank at a spring. On Wednesday, he first had medical aid. On Thursday, a yellowness of the skin was first observed. On Friday, there was an increase of this yellowness, with an obvious aggravation of the vomiting and distress in the region of the stomach. Whenever any thing was swallowed, it was invariably followed by retching, though it was not always brought up. A considerable quantity of a greyish, or dark-ash-coloured, gelatinous matter was frequently rejected. There was so great a torpor and inirritability of the intestines, that it is probable, nothing passed the bowels, during the whole course of the disease, except what was removed by enemata. On Saturday, the whole abdomen had become very sore to the touch, and vomiting of bloody matter took place. He was still able to walk about his room.

It was stated, that till this time, neither the patient nor his friends, nor indeed any one who saw him, felt any alarm respecting his situation.

His most constant attendant thought that a very slight delirium was evident, throughout the whole course of the disease. His pulse was stated to have been uniformly soft and regular, and about ninety beats in a minute; but from examination of the watch by which it was numbered, it appeared, that the second hand revolved in three quarters of a minute, and therefore, that the true number must have been a hundred and twenty. His muscular strength con-

tinued to such a degree, that he was able to get from his bed alone, and walk a short distance to his chair, about an hour before his death. In the course of the disease, he bled several times at the nose, and on Sunday morning, his skin had acquired nearly the sallow and sooty hue of a Mulatto. At this time, there was a great aggravation of all the symptoms, the delirium became prominent, the pulse weak and fluttering, and death soon followed. After death, the whole surface became livid, and incipient putrefaction supervened.

No uncommon heat, or coolness, dryness, or moisture of the skin, or peculiarity of the tongue, *was stated.*

Dr. Fuller of Wethersfield attended upon this case.

The foregoing statement was obtained from Mr. Sugden, the overseer of the Manufactory, who was the principal attendant upon the patient, and was confirmed by Dr. Fuller.

The case continued only five days, and was evidently a very severe one.

CASES VIII. AND XI.

31. On the 21st of June, Abigail Treat, a young woman who had been about a month at the Manufactory, was taken sick, and on the 23d or 24th, Catharine Hubbard, who had been there about a week.

Both were stated to have had red and bloodshot eyes, countenances indicative of peculiar distress, much irritability of the stomach, and prominent anxiety and soreness about the epigastrium. Both were stated to have vomited matter similar to what Wild did, and both cases came to a final crisis on the seventh day. These appear to have been moderate cases.

Both were exclusively attended by Dr. Fuller, though seen toward their termination by Dr. Miner, and the writer of these remarks. Both patients had frequently been in the room with Wild, while he was sick.

CASE IX.

32. Clarissa Child was the subject of the ninth case. She resided on the corner of Cherry and Ferry Streets, but a few rods from the river bank, and near where the Sea-Island lay while at Middletown.

She was attacked the 22d of June, after considerable fatigue from labouring in her garden, under a hot sun. While warm, in consequence of this exertion, she had chills, with severe pain in the head, great anxiety across the region of the stomach, constant nausea and effort to vomit, but without rejecting much in quantity, a sunk countenance, a heavy,

dull eye, and a strong sense of general sickness and distress. The violence of the pain in the head subsided in about twelve hours, leaving a sense of lightness and dizziness; but with the exception of this change, the other symptoms of the early stage continued through the whole course of the disease, with gradually increasing severity. The skin was said to have been constantly cool and moist, the tongue but slightly coated, and the pulse soft and feeble. On the fourth day of the disease, an obvious yellowness of the skin was observed, which had increased somewhat at the time of death. On the fifth day, she began to spit up a blackish bloody matter, in small quantities. On every day previous to the sixth, she was able to sit up more or less in a chair. On the morning of the sixth day, she first had what the attendants called a *fit*, which occurred after there was considerable tendency to coma. It was described as lasting but a few seconds, and consisted in a slight drawing of the head backward, and to one side, one arm being raised, and having a tremulous motion; the whole accompanied with a slight froth at the mouth. A little after noon, the same day, another of these fits occurred, which was said to be a little more severe, and which I witnessed. To me it appeared to be merely a moderate spasmodic effort, produced by an attempt to rouse her out of a comatose state, for the purpose of examining the tongue,

and administering some liquid. Another of these fits was reported to have occurred during the evening of the same day, which was said to have been of longer continuance. These circumstances are mentioned thus minutely, because we are informed by Dr. Beck, that the attending physician considered the case merely, a combination of Jaundice and Epilepsy, and not Fever; and assigned, as a reason, the state of the tongue, skin, and pulse.

33. Mrs. Child died on the seventh day of the disease, and as was common in the other cases, became speedily livid.

Dr. Tracy was her attending physician, and it is believed, he was first called on the morning after her attack. On the afternoon previous to her death, I was likewise called to see her; and I viewed the body after death, as did also Dr. Miner.

The foregoing information was obtained from attendants and friends at my two visits, and was afterwards confirmed by two intelligent and observing persons, who were much with her during the continuance of the disease.

Mrs. Child was not known to have had any connexion with the Sea-Island; but *circumstances* rendered it *impossible* to investigate the subject properly. It is sufficient, that she lived in the vicinity of the Sea-Island, while she was lying at Middletown; that there was free communication between the vessel and

the shore, and that not only many citizens went on board, but that any of the crew, who chose, were much of the time on shore, and visited a great number of houses near the river bank.

CASE X.

34. Rhoda Clark, about nineteen years of age, had been four days at the Cotton Manufactory in the Upper-Houses, when she was taken ill. I could not learn, that any predisposition was noticed, as she supposed herself perfectly well on the forenoon previous to her attack; though it was afterwards ascertained, that for six days, she had had nothing pass her bowels.

Her disease commenced on the afternoon of the 23d of June, with chills, pain in the head and back, much irritability of the stomach, great distress across the epigastrium, and a strong sense of being severely sick.

She was this very day removed about six miles to her father's house, in the south part of the town. For the night, little else than the usual nursing was done, such as the application of Hops and Vinegar to the head, bathing the feet in warm water, and drinking an infusion of the twigs of the Laurus-Benzoin, &c. A moderate dose of Rhubarb was indeed administered, but if it was not thrown up, it produced no cathartic effect.

35. In the course of the next forenoon, medical aid was called. At this time, she was found with vertigo, and severe pain in the head and back, great restlessness and uneasiness, frequent and deep sighing, eyes of a strikingly dull, muddy appearance, face slightly bloated, indescribable marks of distress in the countenance, very slight delirium, skin neither hot nor dry, but moderately warm and easily moistening under the hand, tongue moderately covered with a thin whitish coat, but with no obvious peculiarity, pulse about ninety, soft and rather weak, no uncommon diminution of muscular strength, and yet without any disposition to sit up or walk about. A peculiar affection of the head was one of the most prominent symptoms.

At the commencement of the next day of the disease, there was found to be a general mitigation of the symptoms, such as abatement of the pain in the head, and of the distress at the stomach, loosening of the coat upon the tongue, &c. At this time, there occurred a slight hæmorrhage from the nose. The pulse remained much as on the day before. Toward the close of the third day, she was found somatose, and when a little roused, there was delirium, accompanied with deep sighing, increased irritability of the stomach, vomiting of a moderate quantity of genuine *coffee-ground* matter, peculiarly muddy eyes and haggard countenance, and an entire absence

of all pulsation at the wrists. Throughout her whole illness, there was a paucity of urine. At the commencement of the fourth day of the disease, death took place.

36. After medical aid was called, the treatment consisted in moderate purging with Calomel, accompanied with epispastics to the stomach, forehead, and back of the neck, and followed by rather a moderate use of Calomel, Opium, and Serpentaria, till the sinking and black vomit, on the third day, induced a vigorous employment of exciting powers, but without any evident effect, in alleviating a single symptom. Dr. Miner visited this case in consultation.

37. As this patient was found at a considerable distance from the city, and as the nature of the disease, that had existed at the Manufactory was then entirely unknown and unsuspected in this part of the town, the case was *at first* considered as an anomalous one of common Fever, and from haste, was in fact but slightly investigated, till the black vomit, coma, &c. pointed out its *true* nature. The *predominance* of the affection of the head over all the other symptoms, for the first two visits, occasioned a *suppression* of information respecting many important circumstances (as sometimes happens in some of the most dangerous cases of Pneumonia-typhodes) till it was too late to make exertions to any useful purpose.

It is perhaps necessary to add, that this patient

had had the same intercourse with Wild, during his sickness, as Abigail Treat and Catharine Hubbard.

CASE XII.

38. Joseph S. Simmons, aged seventeen, was the subject of this case. At the time the Sea-Island lay at Middletown, he is alleged to have been in Colchester, where he resided. His father's family, which he was visiting when he was taken sick, lived in Ferry-street, directly across the way, and but three or four rods distant from Mrs. Child's, and but little farther eastward of Capt. Vail's.

From circumstances of a *peculiar* nature, it was impossible, even to *attempt* an investigation of the means, by which he contracted his disease; but his local situation affords data, for sufficiently definite conclusions on this subject.

39. His disease commenced on Tuesday the 27th of June, after long continued bathing and swimming across the river, with chills and severe pain all over the head, but more especially in the occiput. There was much pain likewise in the loins and legs, with great thirst, and sense of dryness in the mouth and fauces. No sensible increase of the heat of the skin was observed, but rather a coolness, accompanied with universal moisture, or at least slight fugitive sweats. His friends immediately administered a

drastic dose of Sulphate of Soda; which produced a powerful effect in the course of the night, or the next morning, the evacuations continuing with great frequency till Thursday evening, when medical aid was first called.

40. At this time, the patient was found with the most strikingly anxious, sunk, and haggard countenance, which I ever had an opportunity to witness. His complexion, although said to be naturally fair, and though he was a mechanic whose employment confined him within doors, was of the cast of the deepest sun-burnt farmer. His eyes appeared dull and dead, of a muddy yellow tinge, with the vessels of the conjunctiva turgid with fluids. The pain in the head was represented as having somewhat subsided, but was still distressing. There was a strong sense of distress about the epigastrium, described as a heavy burning load, and attended with tumefaction and soreness from external pressure. The stomach was highly irritable, vomiting was frequent, and almost every thing swallowed was immediately thrown up. The skin was cooler than natural, and covered with sweat. Tremors resembling agues, but not attended with any sense of cold, were frequent. The tongue was very thinly coated, but without any very obvious peculiarity. The pulse was weak, soft, and small, and between eighty and ninety beats in a minute. From my first visit, he was the whole time in that pecu-

liar light delirium, which is so often overlooked, by common attendants, but which, with proper attention, is sufficiently obvious to a physician.

On Friday morning, he appeared to feel much relief from pain, and had ceased to throw up any medicine, though he retched often. Through the day, the symptoms underwent but little change; but on Saturday morning, there was found to be a general aggravation of them all, together with a great exhaustion of the whole vital powers, though a continuance of much muscular strength. The diarrhœa was still slightly troublesome.

On Friday, he was visited in gratuitous consultation by Dr. Miner,* and on Saturday, by Dr. Todd of Hartford.

On Saturday night, he had alternately, raving delirium, convulsions, and coma. The tongue at this time was entirely destitute of coat, and of a very red and rough appearance. During the course of the disease, the matter vomited was successively, colourless and glairy, green, dark, and bloody, but always in rather small quantity. The case terminated fatally, in the early part of the fifth day. A livid colour, sanious discharges, and speedy putrefaction, made immediate interment absolutely necessary.

41. In the treatment, nothing but palliation was

* He neither asked nor received pay, for his attendance on the other cases.

attempted. Epispastics, as usual, were applied to the epigastric region, to the back of the neck, and to the forehead. The diarrhœa was promptly checked, by a very liberal employment of Opium ; but it was brought back, by an injudicious attempt to employ a few grains of Calomel. After this, it was much less manageable. Tincture of Cinchona, Tincture of Lytta, and Capsicum pills, were all administered with transient beneficial effects, but without any lasting impression upon the case. Although the patient was apparently in a hopeless state, on my first visit, the propriety of the medication, except the Calomel, was as unequivocally proved by its operation, as in any case which recovered ; and the ill effects of some refrigerant and antiphlogistic articles, which, contrary to my advice, were obstinately administered, were equally apparent.

42. This case was on the whole, as malignant and violent, as any that I ever witnessed in Middletown, or elsewhere, either this season or any season past.

From this young man's first indisposition, there seemed to be an unparalleled obstinacy and infatuation among all his nearest friends, but more especially with his mother. Medical aid appeared finally to have been called, more in compliance with an imperative custom of society, than from any wish of assistance. His general appearance, which at first struck me with horror, was viewed, not only with calmness, but with

indifference. When I privately expressed my opinion of the great danger, and indeed, of the hopelessness of the case to his mother, on my first visit—a measure, which I judged absolutely necessary, in order to enforce some *little* attention to my directions, it was received with a mixture of the greatest incredulity and considerable anger. At my subsequent visit, it was strenuously insisted that the patient was not much sick; and when I pointed out symptoms of deterioration, they were attributed entirely to the medication. Even a few moments before the closing scene, and after the approaches of death were too palpable to admit the least question, I was abused at the bedside of the patient, and accused of being the exclusive cause of the state in which he then was. Nothing but a strong sense of duty kept me in attendance upon the case, after my first visit. Happy should I be, could I attribute the conduct of this woman to insanity; but it was too obviously the result of the worst passions of human nature.

CASE XIII.

43. Elizabeth Cotton, who resided in Cherry-street, the next door to, and but a few rods south of Mrs. Child's, was the subject of the next case. She is said to have visited, and even attended upon Mrs. Child, during a part of the first four days of her sickness.

She was attacked on the 26th of June, with strong chills, pain in the head, back, and limbs, and much distress across the region of the stomach. These symptoms were more urgent, and suffered less abatement in the course of the disease, than happened in most of the other cases. The general restlessness and uneasiness were likewise greater than usual. Vertigo, nausea, and vomiting, a thin brown fugitive coat upon the tongue, tremors without sense of cold, and moderate yellowness of the skin, constituted the remaining symptoms, in the secondary stages of the case. The pulse in the course of the disease, is said to have varied from ninety to a hundred and twenty beats in a minute. The skin is said to have been at first hot, but after a short time, cool. Toward the close of life, she is said to have vomited a black liquid, and to have laboured under delirium.

She died on the fifth day of the disease. I viewed the body after death, and witnessed the usual appearances of the other fatal cases.

Before her friends or the public suspected the nature of her disease, it was remarked by a daughter of Mr. Harrington, who accidentally called to see her, that the general expression of her countenance, and other prominent external symptoms, strongly resembled those of her father and brother.

Mrs. Cotton had medical aid on the second day of her disease. Dr. Gilbert of Middletown was her exclusive attendant.

CASE XIV.

44. The fourteenth case was that of Jotham Johnson, who lives in Water-street, and keeps a Sailors' boarding-house. It was here, that Fargo died; and here, likewise, some of the crew of the Sea-Island had lodged and boarded. Johnson had besides assisted at Simmons's funeral.

For more than twenty-four hours previous to the actual access of the disease, there had been considerable languor and lassitude, and sense of coolness. On the afternoon of July 4th, after violent bodily exertion, as was said to work off illness, he was suddenly seized with severe rigors, and intense pain in the head, loins, and limbs, but more especially about the lower part of the occiput, which was compared to what might be supposed to be the sensation, that would be produced by motion of the head and neck, with an intervention of coarse sand between the articulation of the vertebræ. The general expression of the countenance indicated great distress, the eyes were turgid and bloodshot, there was a strong sensation of burning and anxiety in the epigastrium, together with frequent retching, and an occasional rejection of green watery matter from the stomach. The general sense of sickness was at first very strong.

45. A speedy and very energetic use of epispastics, Calomel, and Opium, was followed, in less than

twelve hours, with great mitigation of all the symptoms, which, to all appearance, were subsequently kept almost entirely at bay, by the resolute continuance of the most efficient medication; though, till the seventh day, when the case came to its final crisis, there continued to be more or less of the pain in the back of the head, in the loins and the limbs, but more especially, of the irritability and soreness about the stomach. After the first twenty-four hours, however, in consequence of the obvious effects of the medicine, the case might be considered as mild.

Johnson was visited in consultation by Dr. Miner.

CASE XV.

46. Rebecca Roberts lives on the corner of Centre and Bank Streets, perhaps twelve rods distant from Johnson's, and likewise keeps a sailors' boarding-house.

That part of Captain Barnard's crew, which preceded the Sea-Island to Middletown, staid at Mrs. Roberts's. One of them lodged there several nights. He had been recently sick, and was so imperfectly recovered, that he was unable to go on board the vessel again, till the time that she lay at Churchill's-landing. While she was at Middletown, others of the crew visited and tarried at this house, as well as

at many other houses near the river bank. At this time, it was the undisguised report of the sailors, according to Mrs. Roberts's statement, that the Sea-Island was in an extremely foul state, and that no effectual pains had been, or could be taken, to cleanse her, till her cargo was discharged.

Mrs. Roberts had likewise frequently visited Fargo during his sickness.

47. On the 6th of July, she was seized with symptoms similar to Johnson's, though, with the exception of the irritability of the stomach, they were much less severe.

She was treated with equal promptitude, energy, and effect, upon the same plan as Johnson, and her disease came also to its final crisis on the seventh day. From the third day of both these last cases, there was nothing very strikingly peculiar to be observed from cursory examination, except that from this time, they required the same support, that is necessary in common Nervous-fever, the latter part of the second, or beginning of the third week. This circumstance was noticed particularly by Dr. Conckling, of Chatham, who accidentally saw both patients at this time, and who had been conversant with low typhoid diseases.

Dr. Miner visited Mrs. Roberts in consultation.

ESSAY IV.

ANALYSIS OF "AN ACCOUNT OF AN EPIDEMIC FEVER, WHICH HAS PREVAILED IN CERTAIN PARTS OF VIRGINIA, FOR THE LAST EIGHT YEARS." "BY JOHN L. MILLER, M. D. BRUNSWICK, VIRGINIA."—*Chapman's Journal, Nov.* 1822, *No.* 9. *P.* 23—36.

We think this a highly interesting history, and one which displays in a broad light, a phenomenon not often witnessed in the publications of the present ultra-phlebotomising and indiscriminately antiphlogistic period; viz. a discriminating and judicious practitioner, not so much warped by the prevalent and fashionable doctrines, nor so shackled by the *trammels of authority*, nor so intimidated by the discordant opinions of his professional brethren, as to be either unable or unwilling to discover and admit a change of the form of an epidemic, when it actually takes place, and to vary his practice in conformity. This does not seem to have been equally the fact with all the physicians in his vicinity; for Dr. Miller tells us, that although the epidemic was the scourge of

the places where it appeared, and although it attracted great attention among medical men, yet there was much contrariety of opinion, as to its pathology and treatment. He says the faculty agreed in nothing, but its *intractability* and *fatality*. Respecting the latter point, we think, there was but little room for controversy, as we are informed, that at first, four fifths of all, who were attacked, actually perished.

Dr. Miller says, that the disease prevailed in a highly *inflammatory* form from 1814 to 1819, and in the spring and autumn only; but, that for the three years past, it has become highly *typhoid*, and has extended into the summer. In the cold season, he says, it was a Bilious-pneumonia, and in the summer, a Bilious-fever. He thinks it probable, that it sometimes existed as an *inflammatory* disease, in one place, while at the same time, it was *typhoid* in another, in the same neighbourhood; or in other words, as we infer from the description, *heat* prevailed to a great degree in the one instance, and there was no prominent increase of it in the other. Dr. Miller confesses himself at a loss to account for such facts. On the supposition, that Dr. Miller had no *misapprehension* as to the *real nature* of the hot cases, we think it truly singular, and altogether unaccountable, that highly phlogistic, and highly typhoid cases of the same epidemic, should, in fact, exist at the same time, in the same neighbourhood.

We believe, it happens about the period of a change of diathesis, that an exalted form of that about to disappear seldom (and indeed as far as we can discover, never) occurs; though, on the other hand, the new one may be found in an intense degree. In reality, we have no knowledge of any unequivocally inflammatory* *Epidemic*, except of Small-pox or Measles, that has *ever* prevailed to any *considerable* extent. At all events, such instances are so rare on the records of medicine, that we have never been able to find *one*. The only supposed exception to this remark, is found invariably to be that form of Fever denominated Causus, by the Greeks, and Ardens, by the Romans, and earlier moderns—a form (whether attended with local affection or not) which, we contend, it is very evident from Hippocrates and Celsus, can generally be nothing more than a *peculiar* variety of the *putrid* type. It is perfectly certain, that one variety of the Causus of the ancients, was only a *hot* Pneumonia-typhodes. This is the only form of Fever, that is *ever* likely to be mistaken, by those who are unbiassed by hypothesis; and the only one, that can, with any show of consistency, occasion *much* question among accurate and discriminating physicians. The peculiar obstinacy of

* We, as well as others, often use the word *inflammatory*, when it is *unqualified*, in the sense of sthenic or phlogistic, though we would prefer a more precise term, which should always express the nature of the diathesis at the same time.

the Fevers of this variety of type, the *slight* and *temporary* impression, that *ordinary* depletion and reduction make on their violence, and their *decided* tendency to run into *undisputed* Putrid-fever in their progress, sufficiently distinguish them from all *ordinary* cases of the phlogistic diathesis. Such cases, unlike *cool* Typhus, *never sink*, unless from some uncommon accident, under the freest depletion, before the arrival of a *critical* period. In the first stage, they *bear* most kinds of treatment, *to appearance*, equally well. If depletion is pushed *far beyond* all the bounds of prudence, for *common* inflammatory cases, and even to the degree, that would probably *destroy* life, in ordinary Synocha, it is true, an immediate resolution is sometimes produced. But this, however, is *very rare.* Such practice is *generally* followed by *slow* convalescence, *excessive* irritability, *frequent* relapses, and *imperfect* recovery. More than one sixth of all Welsh's cases relapsed! Such is *not* the sequel of Fevers of *genuine* phlogistic diathesis.

It is an unquestionable fact, that in certain diseases, the system, for a time, is so strongly and exclusively occupied by the specific action of the malady, that it is enabled to resist, *far beyond what it could in health*, the noxious effects of almost any external and internal deleterious measure, or poisonous agent. The vast degree of depletion and evacuation, as bleeding, vomiting, purging, and sweating, the immense quanti-

ties of Calomel, Tartar-emetic, Opium, Arsenic, &c. which are occasionally employed with impunity, where it is agreed, that they *do no good*, can be accounted for upon *no other* principle. The fact, that the patient *bears* such heavy practice, without any *immediate* ill consequences, is *no evidence* of its propriety. The general, the remote, and the *ultimate*, as well as the *instant* effects, must be taken into view, in *estimating* its utility.

SYMPTOMS.

In 1814 and 15, the disease commenced with a chill, which in a few hours, and often less, was succeeded by acute pain in the thorax, and frequently, in the head. The affection of the chest was attended with *a distressing cough in all the stages*, sometimes dry, and sometimes with spitting of blood. Sometimes, instead of the chest, the throat was affected with great soreness and swelling, both internally and externally, which occasionally came on so suddenly, as to suffocate the patient in a few hours, and before the nearest medical aid could be called. Sometimes, instead of the chest or throat, the ear, or the teeth and jaws, would be affected with a most excruciating pain. Indeed, scarcely any part of the body was exempt from attack. It occasionally begun with pain in a finger or toe, or other parts of the extremities, and quickly proved fatal. The skin was

hot and dry, and the tongue foul and parched. The pulse is stated to have been *generally* strong, and *remarkably* hard and tense, through the *whole course* of the disease, though *sometimes*, it was slow and depressed. In all cases, the patient continued to discharge immense quantities of bile, through the whole of his sickness. Dr. Miller thinks, that where he made his observations, the epidemic was, at this time, undoubtedly a disease of *high action*, or in other words, phlogistic, or *actively inflammatory*.

In the detail of symptoms, however, not a single one is specified, except the supposed *strength* and *hardness* of the pulse, which does not *unequivocally* belong to a typhoid disease. The suddenness and severity of the pain, but more especially, the *variation* of its seat, and the readiness with which it was sometimes *transferred* from one part to another, never occur in *any* actively inflammatory disease, except Rheumatism; which however is an inflammation *sui generis*. The general *irregularity* of the symptoms, and the *suddenness* of the event of many cases, are all incompatible with genuine phlogistic diathesis. We have no knowledge of any such numbers of sudden deaths, in genuine sthenic diseases. In no actively inflammatory Fever, is there ever such sudden and severe pain in a toe, a finger, a jaw, or an ear; certainly not, without *soreness* and *swelling* of some considerable continuance, of which there is

no mention made by Dr. Miller. We are aware, that it is difficult, if not impossible, to discriminate in words, between the *heat*, *thirst*, and *flush* of Synocha, and Putrid-fever; but we believe, that to experienced and discriminating sight and touch, they *differ* greatly. The same is somewhat the fact, with respect to the coat upon the tongue. In pure Synocha, however thick, it is never foul or *sordid*. Hardness and strength of pulse are altogether comparative qualities; and without acquaintance with the standard of the describer, nothing very certain can be inferred from these terms. The full, though moderately weak and soft, or the *small-wirey* hard pulse, of certain varieties of Typhus-gravior or Putrid-fever, may be considered as strong and hard, in comparison with that of low Typhus-mitior or Nervous-fever. From the phraseology employed by Dr. Miller, and without reference to any other circumstances, we should have been *inevitably* led to the idea, that there was some *misapprehension* respecting the *real* qualities of the pulse. He says, "the pulse was *generally* strong, and *remarkably* hard and tense, through the *whole course* of the attack, though in *other instances*, it was slow and depressed."

From this statement, we should infer, that *much strength* was neither very prominently, nor universally present, and that *hardness merely*, was a much more obvious property. The only question of mo-

ment, therefore, seems to be—What description of hardness this was? As it continued "*through the whole course of the attack*," under such profuse depletion and evacuations, it is a *matter of demonstration*, that it must have been the SMALL-WIREY hardness of *irritation*, which is liable to be increased by *ordinary* bleeding, purging, &c. instead of the full, strong-hard pulse of phlogistic diathesis. The additional circumstance, which is mentioned, viz. that "*in other instances, it was slow and depressed*," confirms this decision. It is well known, that a *real* depressed pulse *always* increases, to a certain degree, both in fullness and strength, under bleeding and evacuations—a circumstance, which is no where mentioned by Dr. Miller; but which would have been too *prominent* to have been overlooked or forgotten. The diathesis of the United States, for more than ten years past, has been such, that Dr. Miller might be allowed to consider the pulse in a Typhus-gravior epidemic, as hard and strong, in comparison with the sporadic cases of Fever, with which he may have been conversant within this period, without its being admitted to have been positively and absolutely so. Huxham asserts, that the pulse is more *tense and hard*, in Putrid, than in Nervous-fevers, and sometimes seems *tolerably strong*. We repeat, that the small-wirey hard pulse, which is indicative of irritation, or passive inflammation, often attends Putrid-fever, and

is frequently *mistaken* for the truly strong-hard, and large pulse of Synocha (it being actually more incompressible) though it is really as wide from it, as light from darkness. This must have been the sort of pulse, that Dr. Miller met with, as after *nine* copious bleedings in four days, the four last being performed in one night, and carried *ad deliquium*, no *real* strength of pulse *could* have remained; though there might have been an *increase* of the *wirey* hardness. It might have been contracted to the size of a thread, and still have retained *such* hardness*.

Another circumstance merits consideration in reference to the question of the inflammatory nature of this disease. Dr. Miller informs us, that although it

* Nothing is so fallacious as the denominations under which the various sorts of pulse are described by writers and practitioners. For example, a celebrated author, who considers a hard pulse as a symptom to be regarded above all others, because it indicates inflammation, and antiphlogistic treatment, directs, that in order to distinguish such a pulse, there should be only a *very gentle* pressure of the artery, because a *considerable degree* of pressure, gives the *feeling of softness*, and the pulse absolutely *vanishes* under it. In this state of the pulse, he particularly inculcates to avoid all stimulating remedies; and yet he adds, that stimulants always afford temporary relief! When a writer of such high eminence, and one who generally *describes* symptoms so accurately, shows such a total want of discrimination, and seriously utters such abominable, theoretical nonsense, we would not attach much censure to Dr. Miller, for a similar mistake.

attracted the greatest attention among medical men, yet there was much contrariety of opinion respecting its real character, some insisting that it was typhoid, and others, that it was inflammatory. We scarcely conceive it possible, that there can ever be any variation of opinion, with respect to a genuine phlogistic disease, which must of necessity be so palpably and uniformly aggravated by any efficient plan, except depletion, evacuations, and refrigerants, as to compel a relinquishment of it. On the other hand, if any considerable number of patients recover under a contrary method (which is indispensable to the maintenance of its propriety with any show of consistency) the conclusion is unavoidable, either that the disease must have been so *mild* as to recover *in defiance* of bad treatment, or else that it was *not* truly inflammatory. It is true, that an insulated case, with a depressed pulse, may, for a few moments, occasion some doubts; but these can always be speedily removed, by reference to the prevailing diathesis, and more especially by a moderate bleeding. This is so obviously true, that whenever we *hear* of a controversy of this sort, we consider it as the most *conclusive* evidence, which the nature of the case can afford, that the disease is asthenic. A devastating epidemic has rarely appeared, without producing the same controversy; and the *result* has *always* afforded the *amplest* evidence of its typhoid nature. Thus, upon

the appearance of Cynanche-maligna in Massachusetts, in 1735, of Yellow-fever in Philadelphia, in 1793, of Spotted-fever in Connecticut, in 1807, of Pneumonia-typhodes (the disease under consideration) in the Eastern States, in 1812, and even of the Plague itself, and most other malignant fevers, at various times in Europe, this same question has arisen. In such cases, there has almost always been a sharp controversy, and the advocates for a typhoid character have *uniformly gained the victory.* Yet, such is the perversity of human nature, that in all probability, there will ever be found theorists enough, to fight the battle over again, upon the appearance of any new malignant epidemic.* However, it very generally happens, that many, who insist the most strenuously, on the sthenic nature of the disease at first, when they

* We once knew a physician of this stamp, who intruded himself upon a private medical examination, for the purpose of disputing an inaugural dissertation, in defence of the typhoid character of as asthenic and sunken an epidemic, as ever ravaged any country. He founded his argument principally upon theory, which he endeavoured to confirm by his own practice, in a few cases which had fallen upon his hands. He referred especially to a case, which had then been a very short time pending, and in which he had bled freely, as he conceived, with much benefit. He thought it quite probable, it would be necessary to *repeat* the process. While he was speaking, there was a rap at the door, and a messenger informed him, that his attendance was no longer required, as his patient was dead!

are compelled at last to relinquish their opinion, and change their practice, in order to preserve the *appearance* of consistency, contend, that the disease itself has changed its character. Others, however, have not even this candour, but still obstinately persist in enforcing their first opinion, though they themselves have, in fact, changed their practice; as in the instance of the gentleman, who bled only seven cases out of sixty, but still, in his *general account*, absolutely insisted, that his success was owing to free depletion.

"Although confuted, they can argue still."

TREATMENT.

Notwithstanding the great severity and fatality of the disease, Dr. Miller thinks, that by proper treatment, it was as easily curable, as any other epidemic of equal violence. If called within the first three or four days, he bled *plentifully*, so as to make the patient feel some *tendency ad deliquium*, and repeated it, as often as *the pulse seemed to require*. This was immediately followed by antimonial emetics, which *evacuated bile freely*, with great relief. When the emetic did not purge, ten or fifteen grains of Calomel were next administered, and if this required aid, neutral salts or Castor-oil were employed. After thoroughly evacuating the stomach and bowels, Calomel and antimonial powder were employed, to excite and continue, both a steady perspiration, and a gentle and

moderate ptyalism. Warm Vinegar-whey was the constant drink. Free sweating, is said, always to have produced considerable relief, and ptyalism, is declared, to have been *almost* infallible, as respects the ultimate cure. *After reducing the inflammatory action*, blisters were applied over the seat of the pain and local affection. As an illustration of the occasional extent, of the supposed necessary abstraction of blood, Dr. Miller mentions his own case, which he considers as having been violent. In four days, he was bled *copiously*, *nine times*. The four last bleedings, were all performed in one night, and to such an extent, in each instance, as to produce fainting. The blood drawn, is said, *in every case*, to have indicated the existence of high inflammatory action. Several hundred cases, are affirmed, to have been treated with great success in this way.

In the detail of the symptoms of this form of the disease, Dr. Miller has been tolerably particular and specific; but as respects the treatment, he is altogether wanting in the necessary minuteness. In relation to the quantity of blood taken, its immediate operative effects upon the symptoms, the times, and frequency of its repetition, we are left entirely in the dark. We are told, that the bleeding was *plentiful*, so as to produce *tendency* to *deliquium*, and that it was repeated as often as the *pulse seemed to require*. In his own case, which is given as a specimen, the num-

ber of times in which it was employed, is particularized, and the period which included the four last repetitions, as well as, that it was pushed to absolute *deliquium.* As the quantity taken, and the frequency of repetition, are said to have been regulated by the pulse ; and as the peculiar hardness and tenseness, which were considered as constituting the indication, are said to have continued through the *whole course of the attack*, as well as the cough, when the chest was affected, we infer, that *enormous* depletion must have produced, at best, but a *temporary* and *transient* mitigation of symptoms. We are likewise informed, that the vomiting "*never failed*" to produce "*a discharge of large quantities of bile, with very great relief to all the painful symptoms,*" and that "*no case occurred, in which the patient did not continue to discharge immense quantities of bile, throughout the attack.*" From this statement, we infer, that the "*painful symptoms*" must have continually recurred, and that the emetics were frequently repeated, and of course, that the mitigating effects of vomiting, were *nearly* as transient as those of bleeding. In *genuine* phlogistic Pleurisy, the sudden abstraction of a sufficient quantity of blood, is a *sure* means of removing, or *materially* alleviating the pain, cough, difficulty of respiration, and every essential symptom, till a new exacerbation, which does not commonly occur till the succeeding day. In sub-putrid diseases (as in Dr. Miller's own

case) the effects, even of the most powerful depletion, are very slight and transient, and frequently, are not appreciable on a general scale; much less does it afford permanent relief.* Besides, we believe it has been decided, from the amplest experience, that *full vomiting* is always *dangerous* practice, in genuine sthenic Pleurisy. In fact, the exhibition of emetics in *full* doses, is considered so obviously improper, that they are reprobated by almost every practical writer.

Although it is considered, that in one instance, the disease was removed by spontaneous hæmorrhage from the nose, yet if it had been in reality sthenic, such events must have been common among the cases of the physicians, who considered the Epidemic as typhoid, and treated it accordingly, and could not have failed of producing conviction of their error. Whoever is conversant with the writings of the ancients, must know, that a great majority of severe phlogistic diseases, when left to nursing only, would in the end, terminate favourably, by a powerful critical effort of sweating, vomiting, purging, or hæmorrhage. Under bad treatment, such a crisis must obviously be the only redeeming power, for an actively inflammatory disease.

* But in genuine phlogistic Pleurisy, depletion beyond a certain extent, is usually not well borne. If resolution is not produced, benign expectoration is prevented, and the disease is liable to become obstinate and protracted.

We stop to remark, that there is no question, that in Fevers of southern and tropical climates, there is very frequently a spontaneous, profuse, and troublesome secretion of bile; nor are we wholly exempt in more northern latitudes; but *with us*, it is very evident, that this symptom is not only aggravated, but in the *majority* of instances, is *actually* produced, by an injudicious administration and repetition of drastic emetics and cathartics. It is almost an *invariable* consequence of the improper use of Antimony; and as highly as we value Calomel, we know, that this is one of the most *prominent* effects of its *abuse*. From the free, indiscriminate, and long continued use of these articles, by so great a proportion of southern and tropical physicians, we are strongly inclined to suspect, that even a very *considerable* share of their bilious cases, are of *their* own creation. *With us*, an acute disease, when properly treated from the first, can very rarely require Calomel after the fifth day, and much more rarely, after the first week. Why such immense quantities of bile, sordes, saburra, and viscid mucus from the stomach, and such copious dejections of porraceous, and other offending matter, are so often met with, by one class of physicians, and so rarely, by another, can in no way be accounted for, except on these principles. In a word, all evacuation from the alvine canal, by Tartar-emetic and

Calomel, beyond what is proper for clearing it of its original contents, or for making a sudden impression, or for obviating occasional symptoms, is liable to be attended with profusion of bile.

But Dr. Miller informs us, that "*the blood drawn, indicated, in every case, the existence of high inflammatory action,*" though he has left it a problem, in what manner it did this. We suppose, of course, by the exhibition of the coriaceous or buffy crust.* But, without insisting upon the fallacy of this appearance, and the well known fact, that when blood is drawn rapidly (as it doubtless was in these cases) and left to coagulate in a cool place, it will almost always exhibit such a coat of considerable thickness, even when taken from a person in perfect health, we would by no means be understood to controvert the fact, that the lungs were actually inflamed (in the widest sense of the term) in this Epidemic. We maintain, that the real question relates to the *nature* of the inflammation. We do not know, that it has ever been questioned, that the affection of the throat in Cynanche-maligna, is a *true* inflammation; but is it *active* and

* It is observed by an author, and we believe correctly, that "the appearances exhibited by blood drawn, are so various in the same disease, and depend upon so many causes, that physicians have *generally ceased* to draw any conclusions, respecting the *nature* of a complaint from them."

sthenic, or is it *passive* and *asthenic?* This is the point at issue.*

But *in this way, several hundred cases* are affirmed to *have been treated with great success.* Of this important fact, nobody will be disposed, for a single moment, to entertain a rational doubt. Is such profuse bleeding however, an easy, is it a safe method; can it be prudently recommended for the adoption of young men, or even the great body of the medical profession? Are we not informed by one of the most distinguished writers of the present day, who adopts this practice in simple Typhus (of the sub-putrid type) that patients, occasionally, sink *instantly*, and *die* under the process? Do not those cases of Hernia and Luxation, which are supposed to demand it, require the greatest judgment, firmness, and decision of mind in the practitioner? How small the proportion of physicians, that are capable of wielding such weapons! How few cases, that require such hazardous means, can ever be expected to re-

* At any rate, we can add, that in the few cases of the nervous type (which Dr. Miller maintains to be typhoid) where we have seen depletion employed, the blood exhibited the same appearance as in the hot variety, whose character we are now discussing. The same is usually the case in pure chronic Rheumatism, and many other diseases, which are universally acknowledged to be asthenic. We feel as confident on this point as on any other, which we maintain from our personal observation.

cover in common hands! Few, beside Army and Navy Surgeons, who are necessarily familiar with the most formidable operations, can ever, as a general rule, be expected to have coolness and boldness, sufficient to execute such a plan with success.

It is probable, that one great cause of the attempts to introduce such rash and hazardous practice into common use, is the great and undue ascendancy, which Surgeons have acquired, during the devastating wars of the last thirty years. We do not hesitate to denominate the measure in question, rash, hazardous, and in most instances, *absolutely* unjustifiable; because, not a single ounce of blood once drawn, can ever be returned, a mistake can never be repaired, a false step can never be retraced. This is the fact with scarcely any other method of management. There are few other processes, the unhappy consequences of which, we do not possess the means of repairing, in a greater or less degree.

Had this Epidemic been truly phlogistic, there would unquestionably have been a greater and more obvious immediate effect, as well as a more lasting one, from such free depletion. There would likewise have been more cases of resolution, and more instances in which the disease would have been reduced to a trifling complaint, than there appears to have been.

On the other hand, as we have before said, a pa-

tient may *bear* or *tolerate* depletion, when it is really of no service. We have long had the amplest evidence, both from observation and testimony, that certain varieties of the Putrid-type of Fever *will often recover*, in defiance of the most copious and injudicious depletion. From the trifling, and mere temporary benefit of free bleeding, in such cases, in comparison with its speedy, and almost magical operation, in genuine phlogistic diathesis, such cases are commonly inferred to be so much the more inflammatory. The practitioner never suspects, that the moderate curative effects are occasioned by the ill adaptation of the remedy.*

* That a moderate putrid Fever, whether attended by a local affection or not, should, at its first appearance, be mistaken for an inflammatory one, is no matter of surprise; but that at this late day, and after it has been found by repeated trials, that all the usual methods, which answer best for genuine phlogistic Fevers, are comparatively inefficacious, it is utterly unaccountable, that any person should remain in favour of such a course. However necessary and indispensable, free depletion is universally acknowledged to be in truly phlogistic cases, yet the most urgent symptoms of that diathesis, seldom or never require the loss of such immense quantities of blood, as they infallibly yield to less. The success of Cullen and his immediate successors, in the treatment of the most highly inflammatory cases, has never been exceeded; and yet, a pound of blood was considered by them as a full bleeding. It is strange, that the comparatively slight effects of enormous depletion in diseases of the sub-putrid type, does not always suggest the idea of the impro-

The proportion of mortality is decisive against the idea, that this Epidemic was phlogistic. We do not hesitate to assert in the most unconditional manner, that it was hot Typhus. In reference to this variety, we can speak with the greatest confidence, having been conversant with it ever since 1812. We have long been sensible, that it is often attended with that species of diseased action, which like some kinds of Insanity, will allow the system to bear with apparent impunity, many harsh processes, that in health, would be utterly incompatible with safety. Because a maniac may bear abstinence from food for a fortnight, it is no argument of its being a proper part of

priety of the practice. The truth is, it is obvious after all, that in our author's supposed inflammatory form, like Johnson's East India Fever, and Mann's Pneumonia, the disease was cured by blisters and Calomel. It is no where asserted as of the ptyalism, that depletion was *almost infallible as to the ultimate cure*. We have not the least doubt, that Dr. Miller would have succeeded better, with a proper use of blisters and Calomel alone, or assisted occasionally by emetics, than with the addition of bleeding. How serviceable soever Calomel may be, as an adjuvant in genuine sthenic Pleurisy, it can nevertheless be dispensed with; but in putrid Pneumonia, when it is not of the most sunken and rapid kind, it is in fact the sheet-anchor.

In all probability, the principal reason, why the radical distinctions of diathesis and type, have been entirely neglected by late writers, is, that they have neither been studied nor understood; so superficial is the character of the present age.

the curative process in his malady. Having no guide, we ourselves, at first, considered it as an actively inflammatory or phlogistic disease. Our ideas run much in the same channel as Dr. Miller's, nor do we know of any physician, who, on the first appearance of the variety in question, did not make the same mistake.

We must not therefore be supposed, by these remarks, to intend the least personal censure to Dr. Miller. We make them as cautions to the whole of our profession, upon a most important point both of pathology and practice, and one which we consider is very generally misunderstood. If there is any originality to be met with in this volume, it is to be found in the remarks upon the sub-putrid type, and the several hot varieties of typhoid diseases. Our conclusions have been forced upon us, by the experience and observation of at least ten years' practice, under a very asthenic diathesis. We have had our closest attention, very particularly turned to this peculiar variety; and on the strictest examination, we have never been able to find the real *strong-hard* pulse of phlogistic diathesis to exist in a single case of this description. There is not only no accurate account of this hot variety, in systematic writers, but there is an almost equal deficiency, respecting the other forms of Pneumonia-typhodes. In this brief analysis, we cannot pretend to delineate in detail, the proper practice. A large vo-

lume would be requisite, to do justice to this single disease. Without having witnessed several epidemics, no man can form any accurate conception of all its bearings. We have seen it sometimes so mild, that it could have been safely trusted to Eupatorium and Wine-whey. At other times, it demands the combined use of several of the most highly counteracting, exciting, and supporting articles of the Materia-medica. In some cases, a resolution is producible by Calomel with proper adjuvants; in others, Calomel is of no service, the system being completely below its reach.

We repeat again, and finally, that this sub-putrid type is not Synocha. The fact that it is so much more speedily, perfectly, and safely cured by a *peculiar use* and *management* of epispastics, Calomel, Opium, Ipecacuanha, Senega, Sanguinaria, Veratrum, and Colchicum, followed by mineral acids, Cinchona, Arsenic, Alcohol, &c. than by depletion, evacuations, and other antiphlogistic agents, is conclusive. No really phlogistic disease would ever tolerate such treatment.* As far as we can learn, the pulse is never equal to a hundred and twenty, in simple Synocha, nor in the truly sthenic forms of any species or varie-

* There can be no doubt, that the supposed inflammatory cases in Europe, in which Colchicum and Oil of Turpentine, have been so useful, are instances of similar mistake, with respect to diathesis.

ty of Good's Genus Empresma, nor when it exceeds this number, can it ever be the genuine strong-hard pulse of phlogistic diathesis.

In the spring of 1819, the disease assumed what, Dr. Miller considers its typhoid state; and as he tells us, required a corresponding variation in the method of treatment. In this shape, he says, it has prevailed extensively for the last three years, in the counties of Brunswick, Mecklenburg, Lunenburg, in a part of the State of North-Carolina, in the mountainous parts of Virginia, and in some of the Western States.* Dr. Miller adds, that it is still a dangerous and destructive disease, and that still much diversity of opinion exists, respecting its nature and treatment. At this time, it commenced with lassitude, sense of weari-

* We stop here to record, that at several former periods, in various parts of the country, Pneumonia-typhodes has been endemic; but until within about thirteen years, with us it had not been known to rage as an epidemic, since about 1760. Many elderly physicians had several times witnessed a few cases, and it was generally known, that occasionally there were Pleurisies that bore depletion badly. The re-appearance of this disease, was first noticed, in the vicinity of Burlington, Vermont, in January, 1810. In the succeeding year, it prevailed in the western parts of Connecticut, and the adjoining counties of New-York. In 1812, besides making great havoc among the new recruits of the Army, it became diffused through a considerable portion of New-England, and the Middle States. However, before 1812, the great body of practitioners were but little acquainted with its real character.

ness, and slight chilliness—occasionally a severe ague was succeeded, sometimes in a few minutes, and sometimes not under some hours, by acute pain in the thorax, or head, or both—sometimes with a violent cough and bloody expectoration, sometimes with a dry hacking cough, without any expectoration, and sometimes with very little or no cough. In the early stages, the pulse was *large* and *full*, but *very compressible*, and without the least *hardness*. After a few days, unless relieved by the prompt employment of appropriate means, muttering delirium, or complete stupor, took place. Deafness, and in a few cases, partial or entire loss of sight, supervened. The pulse became frequent, weak, and faultering, the tongue and fauces black, and cold and clammy sweats broke out. In every case, large quantities of bile were discharged, which was either of a green, or bluish, or a black colour. The skin was often yellow, or had a livid and dark appearance about the face and neck; and occasionally, there were livid spots on various parts of the body. When the disease extended into the summer, there was an absence of the pulmonary symptoms, and it is said to have taken the form of a Bilious-fever. In this shape, it was attended with great tremors, subsultus, and profound coma, or obstinate watchfulness. Sometimes coldness of the extremities, and of the whole surface, and utter insensibility would suddenly succeed to two or

three febrile exacerbations. Sometimes, though rarely, the disease commenced with these symptoms, and in young persons, sometimes with convulsions. Occasionally, there was great irritability of the stomach, burning heat in the epigastrium, an orange colour of the surface, and black vomit.

Dr. Miller thinks (and without doubt correctly) that grief, fatigue, loss of sleep, injudicious depletion, and every thing calculated to debilitate, were the general exciting causes. He saw nothing that favoured the idea of contagion, but much to the contrary.

Old people were less liable to the disease than the young; but when they were seized, they almost universally died. Drunkards generally escaped an attack. Negroes were the most liable to it *(being doubtless more exposed to the exciting causes; the lower classes always suffer more from typhoid diseases than the affluent)* and they were usually affected with the greatest severity. The strong and the robust, were more liable than the feeble, males, more than females, and adults, more than children.

The country, where this epidemic principally prevailed, is stated to be generally high and broken, and apparently free from any local cause of disease. On the rivers Roanoke and Meherrin, where there are marsh exhalations, it prevailed to a much less ex-

tent, and in a much milder form. Those parts, where there are abundant exhalations, entirely escaped. Dr. Miller remarks, that the spring of 1819 was much cooler, than for many years before.

During the existence of this epidemic, every disease, as is usual, wore its livery. The smallest scratch, any wound made by accident upon a person in perfect health, or even by a surgical operation, immediately assumed a gangrenous tendency, proving extremely obstinate, and requiring (beside local applications of the same sort) all the appropriate remedies for the Fever. Indeed, surgical operations became exceedingly dangerous, of which Dr. Miller states some striking cases, by way of illustration.

From what we have already said, it must be sufficiently obvious, that we disagree with Dr. Miller, in the opinion, that in 1819, this epidemic underwent a change of diathesis. We do not hesitate to say, that it is capable of the amplest proof, that a great change of diathesis is never sudden, and that extreme degrees of *each* are never intermingled, as Dr. Miller seems to suppose. In Connecticut, previous to the universal prevalence of the present typhoid diseases, there occurred a set of intermediate cases, which would yield with nearly equal facility and certainty, either to a moderately reducing and antiphlogistic course, or to a moderately counteracting and supporting plan.

With some, who generalized hastily, this form gave rise to the opinion, that there was no real foundation for the distinction of diathesis in Fevers. At this juncture, *Hamilton on Purgatives* unfortunately made its appearance among us, and as his plan answered about as well as any, in such negative cases, this work contributed, to a great extent, to confuse and unsettle permanently the minds of many, upon the important subject of diathesis. Previous to this, there existed little question, as to the nature of typhoid diseases, or their proper treatment, especially under symptoms of exhaustion. Twenty years ago, a physician would have been considered as an assassin, who should attempt to bleed or reduce, in an unequivocally low state of Fever, or passive inflammation; and he would have justly lost his reputation, and his business, had he been deficient in the discrimination, necessary to distinguish such a condition.

We contend, that Dr. Miller's typhoid Pneumonia did not in fact differ in diathesis, from that which he supposed to be inflammatory, but that it merely changed its type, so that instead of being a peculiar variety of Typhus-gravior or Putrid-fever, it was now converted into a Typhus-mitior or Nervous-fever. It is well known, that although that variety of the putrid type to which we refer, will usually *bear* free bleeding and evacuations, yet that under such treatment, the nervous type is liable to *sink* immediately.

In order to prevert misapprehension, we stop to remark, that we do not employ the terms *gravior* and *mitior*, at all, in their etymological signification of difference in the degree, but wholly in the acceptation in which they were used by the immediate pupils and successors of Cullen, to denote a difference in the *kind* of type. It is the misfortune of our art, that the etymological and popular signification of many of our terms, is much more limited than their technical import.

There appears to be a great want of accuracy, both among practitioners and writers, in the discrimination of the putrid and nervous types. There are two causes for mistake on this subject, the principal of which is, the employment of terms, whose primary significations lead to the error in question. The term *malignant* is usually considered, as denoting what have been called putrid symptoms only; but by universal practice, it is, in fact, applied to all Fevers, that are at once rapid and fatal. Because the terms *gravior* and *mitior* intrinsically imply only variation in degree, this is often incorrectly considered to be the only difference between the two forms of Fever, which are distinguished by these epithets. The truth is, that putrid Fevers, though often the more violent and immediately dangerous, do occasionally occur in a mild form, and nervous Fevers, though sometimes less violent and dangerous, are occasionally

as quick and deadly, as any disease to which we are subject. There is therefore no foundation for the notion entertained by many, that all rapid and fatal Fevers are of course putrid, nor that all mild cases are of the *mitior*, and all severe ones of the *gravior* type. These two types, though they have many symptoms in common, and in some instances run into each other, by imperceptible gradation, have nevertheless their essential peculiarities, and differ in *kind*, instead of degree, from each other. It is probably for want of attention to these points, that physicians so often hesitate, doubt, and dispute about the character of particular cases. The terms *nervous* and *putrid*, as being less productive of error, are therefore less objectionable, than *mitior* and *gravior;* but even these, it must be admitted, often convey erroneous ideas, and in the words of an author, cause us to be "*haunted with the ghost of a departed theory.*" The mass of mankind in all ages, and physicians among the rest, have uniformly paid more attention to words than things, so that names, which obscure analogy, and convey erroneous ideas, have perpetually been productive of mistakes in diagnosis, and of course, in treatment.

There can perhaps be no better example selected to justify and illustrate these remarks, than Jail, Ship or Hospital-fever, which has, I believe, been invariably considered as a putrid disease; and yet, it requires but a moderate share of attention, in relation to the

point, to make it evident to every one, that the Winchester Fever of 1780, as described by Dr. James Carmichael Smith, was unequivocally *nervous*, from its commencement, to its termination. Indeed, Dr. Smith himself, though continually styling it a highly putrid disease, expressly informs us, *totidem verbis*, that he could discover *no symptoms of putrescency* about it. The same has been the fate of the Spotted-fever of Hartford in Connecticut, which, though purely nervous, and entirely destitute of any marks of the putrid type, has been as constantly mistaken, by most persons, for a highly putrid disease.

It is likewise the idea of many writers, that the diseases of tropical regions, are generally phlogistic, and it has been often asserted, that those of cold countries are usually putrid. The opinion in both instances, will be found to be erroneous. The real truth is, that the diseases of warm climates, are perhaps nearly always of some form or variety of the putrid type; and on the contrary, those of cooler latitudes are much more frequently sthenic, and when they are typhoid, they belong in a vast majority of cases, to the nervous type.

It must not be considered as contravening these laws, that very rapid cases of the nervous type, especially when they occur in hot weather, are liable to the same sort of speedy decomposition, which takes place at the same season, in subjects whose death is

occasioned by submersion, electricity, and other casualties. In some cases likewise, which are purely of the nervous type, a certain kind of mortification occasionally takes place, which, both in its operation and progress, is more analogous to the gangrene of the extremities of old people, than to that, which takes place in those of a genuine putrid type. Such putrefaction, and such mortification, however difficult to be described. are still easy to be recognized by an attentive and discriminating observer; and though they are, in fact, putrefaction and mortification, yet both differ widely from that, which belongs to diseases correctly denominated putrid. Petecchiæ, which are so often considered as evincing a putrid disease, being merely a minute extravasation of blood, are of course, no mark either of putrefaction or mortification, but merely indicate great deficiency of vital power in the capillaries.

We shall specify only two more examples, where we consider, there is often a great abuse of terms. So long as the word Inflammation is used vernacularly, in its literal and etymological sense, to denote the act of setting on fire, or to designate a certain variety of combustion, or in its figurative sense, to express heat of passion, its application in physic will always be liable to mislead those, who are not physicians, and even the inconsiderate, the superficial, and the inexperienced, who actually belong to the medical profession. This happens almost daily, under our observa-

tion; for we find, that from this cause, passive or asthenic inflammations, are mistaken for active or sthenic, and treated accordingly. A late distinguished medical writer considers Inflammation a perfect unity; and he attempts to account for all the variation in the external symptoms, from its greater or less rapidity, and from the difference in the *organization* and functions of the parts affected. He even allows this absurd hypothesis to influence his practice so far, that he treats all cases in the same manner. If it were insisted on, I would not object to considering every acute and sub-acute local affection, which is not unequivocally spasmodic, as Inflammation; but under such a view, I should strenuously maintain, the importance and necessity of discriminating diathesis, specific nature, &c. Very nearly the same remarks will apply to the term Fever, as to Inflammation. If we should be induced to treat every case alike, because the name signifies heat, glowing, boiling, &c. the consequences might indeed be disastrous. The above mentioned writer, who considered Inflammation as a unity, could not, without the most palpable absurdity, draw the same conclusions with regard to Fever, and to extricate himself from the difficulty—"*incidit in Scyllam, cupiens vitare Charybdim*"—he has fallen into the opposite extreme, and denies that there is any thing essential or specific, which any two sorts of Fever have in common. It is in such cases, that *words may be said to be things.*

Dr. Miller observes, that the subject of the causes of this epidemic, affords an ample field for the exercise of the speculative talents of the medical philosopher, but that *he* shall not venture upon it. As we entertain no very exalted idea of mere speculation, we heartily concur in his decision. The causes of the rise, progression, diffusion, and final extinction of epidemics, are, in our opinion, involved in *impenetrable* obscurity—at least, in the present state of medical science. Nor are the laws, which regulate them in these respects, *at all* ascertained. The dreams of visionary men upon this subject, have amused both themselves and the world, but hitherto have served only to render the darkness more visible. Whatever may have been our progress in the investigation of endemic causes, it is certain, that except negatively, we have not advanced a single step, in tracing those which occasion epidemics. When we assert, that any region is *salubrious*, we intend nothing more, than that it is free from *endemics*. On the contrary, no local situation, however healthy in general, can insure exemption from the ravages of *epidemics*. Cynanche-maligna, Pneumonia-typhodes, Spotted-fever, and especially simple Typhus, may, for aught we know, become the scourge of every section of the globe. Neither native forest, nor well cultivated country, the most rugged and mountainous, nor the most pleasant and level districts, have any cer-

tain exemption from their ravages. Like that portion of territory described by Dr. Miller, many parts of Connecticut, which are ordinarily the most salubrious, have been most severely visited, with the epidemics of the last fifteen years. On the other hand, individual limited districts will occasionally remain healthy, without any assignable cause, while the surrounding country is devastated with sickness. Nor do times and seasons, heat and cold, appear to have any effect with respect to their appearance, except as regards the *exciting* causes. They have been known to prevail in every month in the year.

We hope, the period will soon arrive, when the medical profession will no longer esteem it an evidence of wisdom, to affect to know what they are in fact ignorant of, and to consider themselves as bound in duty to supply by hypothesis, what they lack in knowledge. It has too long been supposed necessary, to account for every effect, by a specification of a particular cause. If that cause is not ascertained, an imaginary one must be substituted, and considered as an equally good foundation for argument, with any self-evident axiom. It is high time, that we should be content with mere facts, and logical deductions from *certain* premises, without bewildering ourselves in the mazes of hypothetical reasonings. Ever since the days of the immortal Bacon, this plan has been banished from philosophical subjects in general, and has been

almost exclusively confined to the profession of medicine. There no longer exists any reason, why in this respect, we should continue two centuries behind the rest of the scientific world. If the same kind of reveries were to be indulged by the professors of any other branch of knowledge, that are gravely advanced by the most popular writers in physic, they would, at this late period, be undoubtedly ranked among the most prominent candidates for Bethlehem or St. Luke's.

We are happy to find, that Dr. Miller observed the influence of the *prevailing diathesis* upon other diseases, both general and local, and so promptly attributed this peculiar phenomenon to its true cause. Although this is no new principle, but has been established for ages, and although every well educated physician is ready to acknowledge the fact, yet in practice, it seems of late to have been very much disregarded. Even many practitioners, who readily recognize it with respect to acute and general diseases, overlook it in relation to chronic and local complaints; and many, who immediately perceive it, during the prevalence of the most wide-spreading epidemics, neglect it, when it is connected with those that are more circumscribed. Nothing is more common, during the moderate prevalence of an extremely typhoid Pneumonia of the nervous type, than to see the ablest practitioners, mistake single cases of the putrid type,

for a highly sthenic disease. We have known instances of this kind, which proved suddenly fatal under depletion, to occur successively to the same practitioner, without even exciting the suspicion, that he was mistaken in the diagnosis; and unless the mortality is so great as to excite public alarm, such cases produce no investigation. On the other hand, such is the infatuation of the public, or rather of those physicians who regulate their opinions by popular prejudices, that the loss of one case in twenty, under the proper counteracting and supporting treatment, will usually fill a whole town with noise and clamour, upon the subject of stimulating practice.

We have witnessed a period, during the existence of a low asthenic diathesis, and when there was no prevailing epidemic, but only here and there a sporadic case, during which, even simple incised wounds, made with a clean and sharp instrument, and in healthy subjects, would rarely unite by the first intention, or suppurate kindly, without the most stimulating dressings. It was doubtless during the existence of such a state, that the use of the liquid resins, such as Copaiva, was first introduced, and they acquired their celebrity. However improper such applications are, during the existence of a genuine phlogistic diathesis, they are undeniably required often, during the prevalence of the asthenic. To the confusion of the profession, we have not unfrequent-

ly witnessed such unsuccessful practice, among regular surgeons who were not aware of these principles, that the patients themselves were induced to dismiss them, and very justly preferred the most ignorant empirics, on account of their superior success, and because recovery was so much more speedy in their hands, under stimulating applications. Since the universal prevalence of the asthenic diathesis, such instances are, *with us*, almost daily to be met with.

In trifling surgical operations, we have seen recovery retarded for weeks, an irritative Typhus produced, and the patient reduced to the brink of the grave, by an ill-timed adoption, and most injudicious perseverance in antiphlogistic treatment; when under a generous diet, and a proper employment of Opium and Cinchona, the patient would hardly have been confined at all. During such a state, recovery from concussions, bruises, falls, and other casualties, is often very much retarded, and sometimes the health of the patient seriously impaired, and occasionally life lost, by the *indiscriminate* use of bleeding and the antiphlogistic regimen. For the last seven years, we have met with but two or three cases of this kind, which required *such* depletion, or which would not *evidently* have received injury from it. It is remarked by Charles Bell, that "if a patient has suffered contusion by falling, the first effect is a shock to the whole body, and there is sickness, languor, faintness, and debility." "In this state the Landlady gives

her dram; the Surgeon bleeds." "Now I think in this stage, the Landlady is right." Without stopping to contest the propriety of this precept, during the prevalence of a sthenic diathesis, we cannot but express our fullest conviction, of the justice of its application, to the great majority of the casualties of the present day.

Nothing is more common, when there is no serious epidemic prevalent, and the sporadic diseases are mostly mild, than to hear the opinion, that neither diathesis prevails, and of course, the idea, that there may be an intermingling of typhoid and phlogistic cases; but we contend, that there is never such an intermixture, and that even in a time of general health, if one or two cases should actually occur, they would soon agree in their general character. This decision is by no means incompatible with the fact, that when the general diathesis is very slightly sthenic, it may suddenly yield to a highly typhoid epidemic; nor is it inconsistent with the fact, that it is unnecessary, that the existing diathesis should be absolutely the same (as it appears now to be) over any very great extent of country. What is contended for, is only, that in the same neighbourhood, village, or town, opposite *extremes* do *not* occur, side by side.

TREATMENT.

Notwithstanding such prominent and unequivocal characters, Dr. Miller again repeats, that different

practitioners still entertained different views of the nature of the disease, and adopted various plans of practice. Those, who still considered it as highly inflammatory, bled freely, till arrested by the sinking of the patient. Even Dr. Miller himself commenced managing this variety of the disease upon this plan; but his good judgment, and his accurate observation, soon convinced him of his error; and he availed himself of the first opportunity to acknowledge it, and to change his practice. Those who considered it as inflammatory in the early stages, and typhoid in the latter, bled at first, and used excitants moderately toward the close; but both methods (as we think, might have been easily anticipated) proved absolutely unsuccessful. Dr. Miller knew of no instance of recovery, after sufficient bleeding to make any impression upon the system. Another physician of extensive experience, is said to have made the same declaration, with the exception of two cases only, which required extraordinary care, and great efforts to raise them.

It seems then, that even Dr. Miller did not discriminate the first unequivocally typhoid cases, from those which *he* considers as inflammatory. And is there so much difficulty in distinguishing the *extremes* of the two diatheses? We think not—and we should view this acknowledgment, as one of the strongest arguments (had we not others, that amounted to de-

monstration) in favour of the real typhoid character of the first part of the epidemic—as well as of the confusion, which has been produced by Hey, Clutterbuck, Armstrong, and other indiscriminate writers. The unsettled notions of the physicians in Dr. Miller's vicinity, afford the most striking evidence we could have, that there never could have been so unfortunate a time, as when the torrent of antiphlogistic writers burst upon us in America. We were then subject to the most asthenic diathesis, which perhaps ever so generally prevailed in any age or country. The Plagues, which ravaged Italy, and the rest of Europe, in the days of Boccace and Petrarch, could not have been of a more asthenic character, than such a disease as Dr. Miller describes. To find the principles of our physicians unhinged, and general skepticism prevailing, at such a calamitous period, is sufficient of itself, to account for *much* of the mortality. We believe it an *undeniable* fact, that more usually recover from Yellow-fever, in the hands of nurses only, than under the practice of the most learned physicians. When Pneumonia-typhodes first appeared, in many towns, a physician was considered as the messenger of *certain* death. It is said, that in the army of 1812, there was a body of soldiers sick of this disease, who pertinaciously refused to take medicine—and that full as many recovered, as of those who submitted to medical discipline. A Governor of one of the States

preferred trusting himself to a demulcent and diaphoretic course of his own, rather than submit his case to physicians, when so many were dying under their depleting measures—and he recovered. In the Spotted-fever, many more were restored under Mrs. Hurlbert's sweating plan (though it was indiscriminate, and consequently, very often injudicious) than in the hands of those physicians, who mistook the disease for a phlogistic Phrenitis.

Dr. Miller usually commenced his treatment with an antimonial emetic, which on its operation, commonly gave immediate relief of pain, wherever its seat; and he repeated the emetic, as often as the pain returned, provided the patient was not too much exhausted, by the previous vomiting. In some cases, six emetics were given to one patient. Sometimes the torpor and insensibility of the stomach to emetics (of Antimony principally, we presume) was so great, that enormous doses were administered, before vomiting took place. In one instance, seventy grains of the best Tartar-emetic were given to one patient, which only operated three times, and that moderately. Some of Dr. Miller's medical friends, are said to have exhibited a much larger quantity.

This part of the practice, to say the least, we do not think very happy. We speak from experience, having been much conversant with the disease, and having often witnessed the effects of emetics. We

are fully aware of their great power, in *some* instances, and under *certain* circumstances; and for the purpose of meeting particular symptoms, we deem them absolutely invaluable. Their general and indiscriminate use, is however liable, though in a vastly less degree, to the objections which have been made to blood-letting; and in like manner, though much more rarely, death is their immediate consequence. As was the fact in the disease under consideration, it is often necessary to accumulate vast quantities of the emetic drug in the stomach, before it will produce its operative effects, and at last, these effects are not always within our control. Sometimes, emetics utterly fail of operating, and in such cases, they have been known to extinguish the little remaining vital power of the stomach. Free vomiting with Antimony at the commencement of typhoid Fevers, especially of the nervous type, often produces extreme exhaustion of the excitability in general. We have known it occasion partial paralysis, which caused the cases to be mistaken for original complications of a chronic with an acute disease. The convenience and facility with which a plan can be executed, is no small item, in the account of its expediency. For the *complete* execution of no medical process whatever, is it so necessary for the physician himself to be present, as in that of vomiting. In a time of general sickness, no practitioner can be expected, to administer in per-

son, ten or twenty emetics daily, or merely to prescribe them, with any certainty that they will be properly managed. Besides, on account of the predominance either of irritability or torpor, the dose necessary to produce a determinate effect is, *beyond all measure*, more uncertain, than any other class of remedies. The consequence is, that in some instances, the effects are trifling and deficient, in others, excessive and uncontrollable. We have known ten minims of Antimonial wine (which contained only one twenty fourth of a grain of Tartar-emetic) produce, by its excessive operation in such a case, really alarming symptoms; and we have Dr. Miller's testimony, that it sometimes requires more than seventy grains, to produce ordinary vomiting—Such are the extremes of irritability and torpor in the same disease. But we admit, that were there no other method of making a favourable impression upon the disease, or of meeting the particular symptoms, for which Dr. Miller employed them, their administration, with all its uncertainty, would not only be justifiable, but imperative. We are however convinced, from the amplest personal observation, that there is *another method*, which for the majority of cases, is more speedy and effectual in its operation, more certain and permanent in its effects, and more convenient and less hazardous in its execution.

But the objections, which we have made to emetics in general, apply in a vastly stronger degree to Antimony, than to any other article.* We know, that half a dram or a dram of Ipecacuanha, will often operate freely, in some cases of typhoid Fever, when a scruple of Tartar-emetic will scarcely nauseate; but when active vomiting is required, we should greatly prefer the infusion, or in low cases, the tincture of Sanguinaria, or Sulphate of Zinc. The Sanguinaria, more especially, seems to excite a peculiar deobstruent and alterative effect upon the lungs, and if given freely, it often produces a very prominent favourable change, even without vomiting. We know, that Sanguinaria has been reputed to be unkind and harsh in its operation; but we are convinced, that this circumstance has usually been owing to its injudicious application, or sometimes, to an improper choice of a preparation. On several accounts, Tar-

* It is but justice to this subject to state, that a highly respected friend of ours, places great reliance upon repeated emetics, both at the commencement, and through the subsequent stages of most cases of the disease; and it is but equal justice to remark, that his practice is very generally crowned with success. We can only observe, that men of genius have a peculiar dexterity, in the employment of their favourite agents, and with the eye of an eagle, discover and obviate the inconveniences, which would be liable to occur in the practice of others. William Tell could shoot an apple from his son's head. This is no argument that the young man might not have been killed, had the bow been drawn by another hand.

tar-emetic (notwithstanding its frequent employment) is the most exceptionable article, which, at the present day, is ever prescribed in such cases.

We have elsewhere stated, that immense secretions of bile, and excessive gastric irritation, are among the common consequences of its use, which is generally attended with subsequent uncontrollable vomiting, through a great part of the disease. From much attention to the subject, we have been long persuaded, that in acute asthenic diseases, Antimony is always an atonic; and, as with depletion, it must be a very fortunate occurrence indeed, when its counteraction overbalances its exhausting and coinciding effects. As has before been so often inculcated, the most injurious effects of an article, are very frequently not even suspected, although the sudden sinking of a patient at a critical period, is its most common consequence. It is one thing for a patient to recover, as an effect of a certain process, and another, for him to escape with his life, in defiance of it.

At any rate, Antimony, when given in large quantities, in typhoid diseases, with torpid stomach and bowels, is always liable to increase this torpor almost to paralysis; and though immediately after its operation, there is usually some increased susceptibility, or perhaps even morbid irritability, yet there is ultimately found to be a great diminution of the vital energies of this important organ, and a vastly

greater quantity of the diffusible excitants and tonics, become *subsequently* necessary. Dr. Miller very judiciously avoided a repetition of emetics, when the previous one had already produced *too much* exhaustion. When they are decidedly indicated in typhoid diseases, it must never be overlooked, that it is for their counteracting, not their evacuating effects.

We are aware, that it will be a ready objection with the superficial, and one that the careless will deem conclusive, to say, *they* have never seen such things, which will be intended to imply likewise, that *they* do not, therefore, believe them. The only reply, which such a negative assertion can possibly be considered as demanding, is, that *we* have seen them *repeatedly*, and therefore, that *we* must be admitted to believe, that they do sometimes exist.

After vomiting, Dr. Miller gave large and repeated doses of Calomel and Castor-oil, or sometimes Jalap, or neutral salts, till the bowels were well cleared. Immense doses, it is said, were often required to produce any effect. We presume from our own observations, that much less might have been required, had less or even no Tartar-emetic been employed, and had the patient been kept *uniformly* under the use of Opium. In this disease, as in Colic, a proper use of Opium, instead of preventing the operation of Cathartics, usually renders enormous

doses unnecessary, by obviating that condition, which occasions their inactivity. There can be no question respecting the propriety of Castor-oil and Jalap, as auxiliaries to the purgative effects of the Calomel, though it is by no means desirable to *hasten* this article through the bowels. In typhoid diseases, *quick* purging is never as useful as *slow*. In such cases, the principal advantage of the process consists, in the impression made upon the stomach, and those viscera which assist its functions. This effect is lost, when the article passes quickly out of the stomach. Those physicians, who value themselves upon the expedition with which they purge, generally do more harm than good, in acute asthenic diseases. Neutral salts, on account of their refrigerant and debilitating effect upon the stomach, were doubtless more injurious from this general operation, than serviceable by their cathartic power. After purging, Dr. Miller employed Dover's powder, Camphor, infusion of Serpentaria and Vinegar-whey (Mustard or Wine-whey would doubtless have been better) with a diaphoretic regimen, which usually excited and continued free perspiration. This was kept up as long as there was violent pain, or as the system *would bear it*. We think Dover's powder rather an injudicious form for the exhibition of Opium and Ipecacuanha in low typhoid diseases. Different cases require very variable proportions to produce the same effects. In cases

of very irritable stomach we have known the small quantity of Sulphate of Potash, which this preparation contains, to interfere materially, with the utility of the other ingredients. We think likewise, that Opium was not employed with sufficient freedom. What possible objection could there have been, especially after such copious evacuations, to so free a use of it, at *regular* and *short* intervals, as *absolutely* to subdue and keep under all pain? Blisters are said to have been freely employed. We have found them of the greatest utility, and that even in the forming stage of the disease. As an expectorant, a mixture of Laudanum, Antimonial wine, extract of Liquorice, &c. or a preparation of Ammoniacum, was employed. In our remarks above, we did not overlook the fact, that the use of Opium is twice mentioned, but from the circumstances, we should not imagine, that much reliance was placed upon it, in this truly formidable disease. Antimony, it will be noticed, is again employed, we presume, from some general notion that it possesses a sort of abstract, or specific, diaphoretic, expectorant, and perhaps febrifuge property; but we doubt the existence of such powers in any article. It is only by adaptation to the state of the patient, and the nature of the case, that any medicine ever operates in this way. As we have elsewhere observed, we do not believe Antimony to be capable of proving diaphoretic, or expectorant, or

febrifuge, in every febrile or pulmonary case, any more than we believe Cinchona to be febrifuge in every stage of Fever. We have often observed, that Antimony increases heat and dryness, in certain low cases of typhoid Fever, when Opium, Alcohol, Serpentaria, or even Ipecacuanha, would produce immediate moisture, and natural warmth. In this instance, we think, Ipecacuanha, Asclepias, Senega, Sanguinaria, Veratrum, or Colchicum, would have proved much more efficacious expectorants. Ammoniacum, though in such cases a weak medicine, was well enough adapted to the symptoms. We commend Dr. Miller's neglect of Squill. Though so generally employed, it is too liable to disorder the stomach, to be very proper in such a disease.

It seems, Dr. Miller's treatment did not commonly arrest the disease at its access, but that the patients often run into a low state, attended with small, weak, and frequent pulse, tremors, subsultus, delirium, &c. When these symptoms appeared, Cinchona, Sulphuric-acid, Camphor, Ammonia, Æther, &c. were administered, in as large doses as the stomach would bear; and when there were cold sweats, and cold extremities, the same remedies were given by enema. From experience, we have not much confidence in the exciting and supporting powers of *any enemata*, except of the diffusible stimuli. Sinapisms were also applied to the head and extremities, and sometimes

to almost the whole surface of the body, and renewed every three or four hours. Frictions with Oil of Turpentine, or decoctions of Capsicum, the application of cloths dipped in boiling water, and where an almost deadly stupor existed, the actual cautery, all proved highly useful excitants. We consider the *hot-water blister* as preferable to, and *always* capable of *superseding*, the actual cautery. In the most sunken cases, great reliance was placed on ardent spirit of some sort or other. Dr. Miller sometimes gave from two pints, to a gallon of Brandy, Rum, or Whiskey, in the twenty-four hours, with the happiest effects. During the summer disease, the exhaustion and coma were much greater, and took place earlier; and of course, excitants and tonics were employed earlier. There were some cases, in which, *neither emetics nor cathartics could be used, without danger of immediate death*, as the disease begun with cold sweats, cold extremities, weak pulse, coma, &c. The most intrepid use of stimulants was here immediately resorted to.

We think the propriety of the exciting and supporting part of Dr. Miller's practice, must be evident *a priori* from the nature of the symptoms, and *a posteriori* by its effects. We suspect, however, had antimonials *not* been employed, and Calomel, Opium, Ipecacuanha, &c. used in their stead, that many cases (though it is by no means likely the whole) might have

been saved from running down to this low state; but when thus sunk, we believe no other plan could raise them.* In many cases, we do not doubt, that some other exciting agents might likewise have been useful, as Tincture of Lytta, and the Liquor of the Arsenite of Potassa. We are aware, that this last article is maintained by two highly respectable American writers on Materia-medica, to possess no tonic powers, and that when employed in efficient quantities, and for a sufficient length of time to overcome disease, it produces great debility, and is consequently not adapted to genuine asthenic cases, more especially to true Typhus, and diseases approaching to it. We take this occasion *again* to observe (though these remarks have already been quoted) that all this is diametrically opposed to our own experience; and we have been habitually in the custom of using it, for many years past. We have often employed it as a restorative in general debility, whether the sequel of Fever, or the result of chronic disease, in Dyspepsia, Hemicrania, Intermittent, and more especially, in Typhus and Pneumonia-typhodes, and we can affirm, that it promotes appetite and increases the power of

* We must say, however, that had Opium been properly employed, there can be no doubt, that much less than half the quantity of Alcohol would have been necessary. We cannot conceive, that such enormous quantities of Alcohol can *ever* be indicated, where there has been *previous judicious preparation*, or even when there is a *proper combination* of the other exciting and supporting remedies.

digestion, that it augments the force and fulness of the pulse, reduces preternatural frequency, and increases muscular strength and nervous energy, *with as much certainty* and uniformity, as any other article, with which we are acquainted. We are not, however, disposed to contest the term, which shall be applied to the effects of this article, or the station, that it shall hold in a system; though we confess, that if such properties do not constitute a tonic, we are ignorant what does. For ourselves, we should be inclined to place it at the head of the mineral articles of this class, and to consider it, with Cinchona, as forming the connecting link between the mineral and vegetable tonics. We cannot but impute the discrepancy of opinion respecting this article, to some defect, or at least diversity in the method of employing it. Able men frequently manage very indifferently articles, against the use of which, they have unconquerable prejudices.

We are confident, that Opium might have been employed to a much greater extent, in the secondary, as well as in the primary stages of this disease. We know of no other excitant, that is equally efficacious, and well calculated to *support* a patient, and *obviate* so many of the sinking symptoms of low typhoid cases, as Opium. It is especially adapted to prevent coma, or *relieve* it after it has taken place: but for this purpose, it must be given at *short* inter-

vals, not longer at farthest, than every three or four hours, and occasionally, as often as every hour. In some extreme cases of Spotted-fever, commencing much like those last mentioned by Dr. Miller, with deep coma, cold sweats, cold extremities, and complete absence of pulse, we have known (but not among our own patients) of dram doses of Laudanum being given every half hour, and continued for several days, with the most complete obviation of coma, and all unnatural tendency to sleep, together with a restoration of the pulse, and the natural heat, and the production of an agreeable moisture of the skin.* We

* If the discovery was not first made, the fact was fully confirmed, during the prevalence of Spotted-fever, that the comatose stupor of Typhus, is more effectually obviated by Opium, than by any other single agent. From some inexplicable cause, a greater number of physicians lack skill in the management of Opium, than of any other article, and yet the indications for it are more plain, and it is *more certain in its effects*, than any other remedy which we possess. When Opium is properly employed in low cases, a much less quantity of Alcohol, as is before said, is subsequently necessary. Surely there can be no fear of its stimulus, where a gallon of Brandy is proper, in the twenty-four hours. We often hear, however, of so obstinate a degree of phlogistic diathesis (even after the most enormous depletion, and evacuations pushed to such an extent, as to leave the patient at death's door, from the practice merely) that one spoonful of Wine, a little simple infusion of Serpentaria, or a few spoonfuls of weak animal broth, cannot be borne, without the greatest disturbance; and even during convalescence in such cases, once or twice walking across the room, will produce a relapse!

think Dr. Miller might, in some instances, have found essential benefit from the internal use of the substance, or of a strong decoction of Capsicum.

In the last form of the disease, Dr. Miller says, the lancet was uniformly an unnecessary, a dangerous, or a fatal resort. This remark, he founds upon actual experiment. In one instance, where fifteen cases only occurred, they all died under depletion; in another, twenty; and in another still, a hundred and fifty. We think, that none but a madman, or an assassin, or what is *still more dangerous to the lives of the community*, a medical theorist, could have dreamed of depleting in such a disease. At so late a day, after this point had been so thoroughly and repeatedly ascertained, those who persisted in blood-letting, should have been amenable to the laws, and indicted for manslaughter, if not murder, for the loss of the hundred and fifty cases. If they did not previously know the effects of such a measure, they were impostors for

We do not hesitate to assert, that such a state is *altogether* factitious, and occurs *only* in the hands of such men, as are *ignorant* of the proper use, or are *unskilled* in the management of Opium. This state consists *essentially in irritability*, and is no way connected with a really phlogistic diathesis, but is, in fact, *aggravated and prolonged* by the antiphlogistic treatment. Nothing, except a *proper* use of Opium, will, with any certainty, obviate this condition, and bring the system again into a fit state to be benefited by the *restorative* course, which is so imperiously indicated.

attempting to practice Physic, without being acquainted with the fundamental principles of their art. If they did know them, they were guilty of the most criminal homicide. Nor are those authors and professors, who write from their closets, without having witnessed low epidemics, less culpable, in so confidently inculcating principles, which must necessarily lead young practitioners astray. Is a physician never to learn, what course to pursue in a new disease, till after he has slain a dozen or score of the first patients, who are so unfortunate as to fall into his hands?

Dr. Miller tells us, that his system of practice, though so palpably approved by its effects, met with much opposition; but its great success, and the destructive consequencess of a different method, fully justified it; and he has the satisfaction to add, that many who were at first its most violent opposers, are now adopting it, with the fullest conviction of its efficacy.

We well know, that it is very easy to make general assertions with respect to the pernicious consequences of stimulating practice—but where are the specifications? Where can a single instance be named, in which a man of acknowledged skill and judgment, has injured his patient permanently, by an exciting course; much less, where death has been occasioned by such means? Of all the cases of unfortunate and mistaken practice, not one of the latter de-

scription has been found. The reason is obvious. When exciting articles are used in efficient quantities, they are almost invariably prescribed to meet a particular state of the symptoms, and their *operative* effects are *closely watched.* Who was ever killed by Corrosive-sublimate, Nitrate of Silver, Arsenic, Lytta, Opium, Stramonium, Prussic-acid, &c. when they were prescribed by any regular practitioner? On the other hand, how easy would it be, to substantiate the fact in a court of justice, that hundreds have lost their lives, in consequence of bleeding, and other reducing agents? It is not, for a very general rule, the dashing, careless physicians, who freely use the articles, about which there is so much clamour. Nor are these articles usually employed to make a hasty impression. They are prescribed for producing a *uniform, permanent,* and *efficient* support. If a single dose produce more than the expected effect, the succeeding is easily diminished, and all unpleasant consequences *can be* prevented. Excessive depletion and evacuations have no immediate remedies. The patient is usually sunk, before the danger is discovered. "*The lancet is a minute instrument of mighty mischief*"—*a weapon, which annually slays more than the sword.* Antimony alone does more injury, than all the efficient exciting and supporting agents of the Materia-medica. These facts are undeniable, and admit of the fullest proof, and that even from the ac-

knowledgments and statements, of the very physicians, in whose practice they have occurred.*

Dr. Miller thinks, that some of the cases, which approached so nearly to Yellow-fever, may afford a useful analogy, for the treatment of that disease; and he looks forward with some confidence, to the time when, if pursued with intrepidity, it may disarm that fatal malady, of some of its terrors. We most cordially concur in this opinion.

Although we have thus far forborne any *detail* of what we consider the best practice, in our remarks re-

* As these assertions have been so often made, in the course of this volume, it is but justice to ourselves, to state the data, upon which they are founded. *It is not a random conjecture or suspicion.* Our particular attention has been turned to this subject for years; and we can safely declare, that within the sphere of our *personal* knowledge, and even from the *statements* of physicians themselves, on an average, from two to three persons in a population of every thousand, annually fall victims to an obviously injudicious depleting and reducing course. This ratio will give between twenty and thirty thousand for the United States. But, as we reside in a section of the country, where from most of our physicians well understanding the nature of Typhus, there are probably much fewer abuses of this kind, than in most other parts, the calculation is unquestionably *quite too small*, on the whole. The King of Great Britain, without doubt, loses every year more subjects, by these means, than the battle and campaign of Waterloo cost him, with all their glories. It is even questionable, whether his military surgeons, in the *medical* part of their practice, do not slay more of his troops, than fall by the sword of his enemies.

specting the sub-putrid variety of Pneumonia-typhodes, we cannot refrain from some specification, while treating of this nervous type. At the commencement of a severe case, that is attended with considerable pain, we have seen the most speedy and the best effects, from the immediate application of *strong* blisters, the exhibition of a *full* dose of Calomel, with Opium *sufficient* to procure *complete* ease, and to prevent any operation upon the bowels, for at least *twelve* hours; the whole accompanied with a diaphoretic regimen, such as pediluvium, followed by rubefacient applications, and the use of worm aromatic infusions of Mentha, Hedeoma, Cunila, Salvia, Rosmarinus, and more especially, Serpentaria. Asclepias-tuberosa is a valuable auxiliary, both as a diaphoretic and expectorant. After this, the Opium is to be repeated at regular intervals, and in such quantities as to prevent a recurrence of the pain. The periods ought not to exceed four hours at the *farthest*, and it is often necessary, that they should be as frequent as *two* hours. If there is no cathartic effect in the course of twelve hours, free, but not powerful purging, must be produced by Castor-oil, or some mild vegetable article. The Opium is by no means to be omitted, on account of the cathartic. After the bowels are properly cleared, moderate doses of Calomel with Opium, and (if the skin is hot and dry) Ipecacuanha in conjunction, are to be regularly administered, at short and stated pe-

riods, till there is a slight mercurial effect upon the system, and till that sub-critical change takes place, which is manifested by moisture of the skin and mouth, easy expectoration, and general freedom of the excretories. The quantity of the Calomel should be such, as to *ensure* a speedy effect upon the mouth, and of the Opium, *sufficient* to prevent its action upon the bowels, and at the same time, *completely* to control the pain. The diaphoretic regimen is to be continued, as long as the Calomel is employed. The Calomel, if properly used, is scarcely ever required, later than the fifth day, and often, not after the third. During the use of the Calomel, and generally after its abstraction, it is proper to administer Senega, Sanguinaria, Veratrum, or Colchicum, at short intervals, and in as large doses as the stomach will bear without nausea, as expectorants, deobstruents, and counter-agents. The Opium is still to be continued. Senega, though a good article, is liable, when freely employed, to produce vomiting and diarrhœa. These points require particular attention. Sanguinaria is more especially adapted to cases attended with derangement of the biliary organs, and is not liable to produce the inconvenient effects of Senega. Decoction is the best preparation for the latter, and tincture, for the former. Less than about a dram of saturated tincture of Sanguinaria, every two hours, will seldom prove efficient,

in common *severe* cases. Veratrum and Colchicum are best likewise in tincture. Their doses require to be limited by their effect upon the stomach and bowels. Less than half an ounce of *strong* decoction of Senega, every hour or two, will not generally answer much purpose. Whoever uses either of these four articles, in efficient quantities, without Opium, will *ever* be liable to disappointment in their effects. In the latter stages, if the exhaustion requires it, Cinchona, Alcohol, Arsenite of Potassa, strong tincture of Lytta, Capsicum, and Ammonia, may be used with advantage, and without the *least* apprehension of producing stricture of the breast, suppression of expectoration, or heat and dryness of the surface. Indeed, these articles are *often* the most efficacious expectorants and diaphoretics, as well as supporters, which we possess. The blisters may be repeated at any time, and it is often useful to apply several in succession. The Opium generally requires a considerable increase, during the last stage, not so much to abate pain, as to allay irritation, prevent or relieve coma, and support the powers of life. After the first purging, the bowels are to be kept in as nearly a natural state as possible. This is usually better done by enemata, than cathartics. When, however, laxatives are necessary, Castor-oil, or some one of the purging tinctures is the most proper. The regular and continued use of Opium, in conjunction with the other ap-

propriate articles, does not usually produce constipation; but if it does, it is no reason for its discontinuance. Although Opium is not to be given in such quantities, as to produce *unpleasant* soporific effects, yet *sufficient* must be employed to meet the symptoms, which have been mentioned as indicating it. Deficiency in quantity often seems to increase rather than allay irritation.*

When from any accidental or unavoidable cause, expectoration is checked, respiration becomes difficult, and the patient is threatened with symptoms of bronchial effusion, emetics either of Ipecacuanha, Sanguinaria, or Sulphate of Zinc, or to insure success, a combination of the whole, are proper, and in many instances *indispensable.*

When this plan is promptly begun, and dexterously and judiciously executed, a *resolution* of the disease is *often* produced, within the first twenty-four hours. If this is not accomplished, a final crisis may take place upon the third, and often on the fifth day; but if it is protracted to the seventh, the stage of exhaus-

* When pain and distress are relieved by Opium, the patient often inclines to sleep much. This sleep, when it is calm and easy, and without laborious or stertorous breathing, and when the patient is awaked with facility, must not be considered as the soporific effect of the Opium; it is a salutary state, which results from relief of anxiety and suffering. Such tranquil and mild sleep, affords no indication for the abstraction of the Opium.

tion is much more mild, than after the usual methods of treatment. Under our observation, this disease has *always* paid a *strict* regard to critical periods.

This sketch of our plan, must be considered as adapted to a *regular* and *severe* case of the *nervous* type. In a benign case, not attended with much pain, the Opium may be omitted, till after catharsis, which is best produced by small and frequently repeated doses of Calomel, managed in the manner directed for simple Typhus.*

In cases which, at their commencement, are characterized by *torpor* and *latent* excitability, without any *material* exhaustion, it is proper to *commence* with

* Free ptyalism and profuse sweating, which have been so often recommended upon mere empirical principles, are in all cases to be avoided, as well in this, as in every other typhoid disease. The same remarks will generally apply to *indiscriminate* vomiting and purging. Nothing is more erroneous than the notion that purging is *per se* a remedy for this disease. Whenever this measure alone cures, it is unquestionably upon the principle mentioned under the remarks upon bleeding in Yellow-fever. *Dashing* practice seems to be the order of the present day. Whatever measure is adopted, must be carried to an *extreme*, and relied on *exclusively*. There seems to be no idea of a *combination* of measures, or of a regular and steady course of *counteraction*. This is not confined exclusively to mere antiphlogistic practitioners. There are some, who give Cinchona daily by pounds, and proof Spirit by gallons, as well as others who bleed by quarts, and administer Calomel and Tartar-emetic by drams.

emetics, in order to rouse the system into action. With this torpid variety we have been much conversant, and therefore, feel inclined not to pass it by, without comment. It seems to have been little noticed by authors, though the *Paresis-inirritativa* of Darwin, and the *Synochus-soporosus*, of Good's Nosology, appear to be similar forms of Fever. Sporadic cases are usually mistaken by physicians, not conversant with it, for some species of disease, belonging to Cullen's class Neuroses. The more rapid cases are usually considered, as some variety of Apoplexy, the more moderate, as Hypochondriasis; and when they terminate suddenly and unexpectedly, according to the vulgar acceptation, they die of a *fit*. In general, though they are not *essentially* the most dangerous cases, yet from circumstances, they are frequently among the worst to manage. The patient himself, with his friends, is often so skeptical respecting any danger, as not willingly to submit to the proper treatment, till it is too late to make any effectual resistance to the progress of the disease. Several instances have fallen under our observation, which were thought too trivial, to require any thing more than mere nursing, till the subject was actually *in articulo mortis*. Most counselling physicians, who are not familiar with such cases, invariably fail of forming any adequate idea of the true state of the patient, and generally advise little or no medication. When

informed of the speedy event of the disease, they are disposed to consider the complaint as altogether factitious; and to ascribe recovery on the one hand, to the abstraction of medicine, and death on the other, to an injudicious perseverance in its use.

The emetics employed should invariably be of the quick and acrid kind, such as Sanguinaria, Senega, Zinc, Copper, Mustard, &c. and they should be immediately followed by the acrid excitants, as Capsicum, Lytta, &c. These cases seldom require *much* Opium, and there is usually no pain to demand it. The production of a moderate mercurial action, within the first forty-eight hours from the attack, if this is followed by resolute support, almost infallibly breaks up, or at least, greatly mitigates such cases; but this cannot always be effected. Sometimes, where there is a great insusceptibility to mercurial action, it may be induced by a combination of acrids and Alcohol, with Calomel. Alcohol and the essential oils, are always useful exciting and supporting agents. The production of strangury, and what is usually termed febrile re-action, in the early stages, are favourable symptoms.

As respects capability of *bearing* immense quantities of medicine, which is not indicated, or which is even *improper*, these cases have considerable analogy to those of the sub-putrid type, as they do not usually sink, till the arrival of a critical period.

In those *torpid* cases, in which there is great *exhaustion*, instead of *dormant* excitability, emetics answer no good purpose. Our whole trust consists in the most vigorous employment of the acrid and diffusible excitants; but such cases are extremely liable to sink at a critical period, under any practice, or no practice. In some instances of this sort, all expectation of recovery is as vain, as an attempt to move the earth, without a fulcrum for our machinery to rest upon.

There is also a variety, in which *irritability* and *exhaustion* are combined. In such cases, Calomel cannot in general be used, even in the *smallest* quantities, as it is liable on the one hand, to run off violently by the bowels, without producing its specific effects, or on the other, it will occasion a distressing irritation and restlessness, under both of which occurrences, it speedily exhausts the patient. In fact, these *irritable* cases require the greatest caution, in regard to regimen, diet, and medicine. They admit but very sparingly of evacuations, and never *with impunity*, of any degree of the antiphlogistic practice. An ill-timed emetic, cathartic, or even enema, will almost infallibly destroy life. We have known one dose of effervescing mixture produce immediate vomiting, when the stomach was before perfectly at rest. Even half a dram of Carbonate of Magnesia will sometimes be followed by a most exhausting ca-

tharsis. Of course, neutral salts, vegetable acids, Spirit of Nitric-æther, not to mention Antimony, are always to be religiously avoided. Nausea, diarrhœa, dysentery, and tympanites, in *these cases*, are never the effects of foul stomach, morbific matter in the alvine canal, nor the sequels of constipation; but, they are *invariably* increased by vomiting, purging, refrigerant and antiphlogistic agents, and other indiscreet management. Wine is mostly incompatible with the irritable stomachs of such cases. Cinchona, mineral-acids, and common tonics, do little or nothing in the most moderate cases, and in the most sinking, if they produce any effect at all, it is comparatively that of *atonics*. Capsicum and Lytta do not commonly agree. For such *irritable and sinking* cases, OPIUM is the most useful and important remedy. In point of efficiency, Alcohol and epispastics rank next. The essential oils are often excellent adjuvants. In the early stages of moderate cases, a powder composed of equal parts of Camphor, Sub-Carbonate of Ammonia, and soft Carbonate of Lime, or when the Camphor is offensive, of the other two articles alone, if given freely, will sometimes relieve the *sinking*, and lessen the irritability; but in general, a *controlling* dose of Opium, followed by smaller doses, at regular and short intervals, constitutes the most successful method of combating urgent symptoms, and of supporting the patient. There is a great difference in the degree.

violence, and severity of the different irritable cases. In some, ten minims of the tincture of Opium every two hours, will effect more, than a grain of Opium in substance every hour, in others. From half a dram to a dram of the Liquor of the Arsenite of Potassa, in the course of twenty-four hours, will sometimes produce the most striking good effects in the latter stages. Some cases imperatively require twenty-five grains of Opium, two pounds of diluted Alcohol, and a dram of the Liquor of the Arsenite, in the twenty-four hours, for a considerable length of time. In such an Epidemic as Dr. Miller describes, we presume, that many of the two last mentioned sorts of cases, must have occurred.

We can conceive of no acute diseases, unattended with a chemical or mechanical lesion of a vital organ, in their nature as *absolutely* mortal, unless when *extreme* exhaustion is attended, with *extreme* irritability, or with *extreme* torpor. Could we have any exact standard by which to measure such cases, all medicines, except palliatives, would be absurd. But, as we have no absolute principles of prognosis, an effort is *always* demanded. These extremes of irritability or torpor, joined with complete exhaustion, during the prevalence of a very asthenic diathesis, occasionally attend any acute disease. We have seen them in simple Typhus, Spotted-fever, Yellow-fever, Cynanche, Pneumonia, Dysentery, Measles, and Rheumatism;

in the *acute* paroxysms of *chronic* complaints, and in many other cases, which were not, nosologically, febrile diseases. When such *sinking* cases fail, in the hands of a time-serving physician, he calls them by a wrong name, as Hydrocephalus or Apoplexy; and when they are the patients of others, who have employed a supporting course of practice, he asserts, they were killed by stimulants. So many subterfuges are there, to keep in countenance ignorance, error, and imposition.

Before we dismiss the subject of *our specific* treatment of this form of disease, we will add a few words upon the management of that hot variety, which *first* attracted the attention of Dr. Miller. In comparison with the regular and severe disease of the *nervous* type, *sub-putrid* Pneumonia demands a *more prompt* and a *freer* use of Calomel and Ipecacuanha, it admits of more purging, and independent of special indicating symptoms, it is *oftener benefited* by emetics, and it does not usually require as *early* support. Epispastics, Opium, Asclepias, Senega, Sanguinaria, &c. are equally useful, and their employment must be regulated by the same principles, as in the nervous variety. The same support likewise, both in kind and degree, is necessary, under *equal* exhaustion. After the *semi-critical* change, which is produced by the preparatory treatment, we must enter upon a supporting course, without *waiting* for the

sinking of the *final* crisis. Notwithstanding assertions to the contrary, from high authority, we know from the *amplest* experience, that Ipecacuanha, independent of any nauseating effect, is, under proper management, one of the surest diaphoretics which we possess, in *regular* hot typhoid diseases. We state this fact, because its supposed want of diaphoretic power, is often pleaded as an excuse, for what is otherwise admitted to be an injudicious use of Antimony.

There is still a *much more highly* putrid variety, which, though not very common in this country, has at various times, been noticed in Europe. This is attended with all the urgent symptoms, of the most putrid form of Fever; and from its *very access* requires Cinchona, mineral acids, Opium, and Alcohol, with the whole antiseptic course, without *wasting* time, in *useless* preparation. If we do not mistake, we have now glanced at all the *principal* varieties of typhoid Pneumonia.

There is one point, which here demands consideration, and that is the hypothetical doctrine, that a free use of diffusible excitants first produces, and afterwards continues, what has been theoretically termed *indirect* debility. What effects these articles might produce in a genuine sthenic disease, or in one, in which there is neither an increase nor a diminution of any of the energies of the system, we can decide

only from analogy and testimony, having *never* witnessed their employment, under such circumstances, unless empirically, at the very access. In the cases which we have just described, these medicines, *instead* of exhausting excitability, or farther diminishing any of the vital powers, do actually and uniformly *increase* susceptibility to the impression of the *permanent* tonics, as well as of food, drink, and all the ordinary and *natural* stimuli, and of themselves do, in fact, furnish a real *pabulum vitæ*. We think, we are prepared to show at the bedside of our patients, that there is nothing more absurd, *in its application to disease*, than the Brunonian doctrine of *indirect debility*, and to prove, that the remedies in question, when *regularly* administered, are absolutely incapable of producing *sinking symptoms*, in the stage of exhaustion of genuine typhoid diseases. The truth is, that in all those cases, in which we have seen it necessary to use the greatest quantities of what are called the diffusible stimuli, there has been the most prominent *accumulation* of strength and excitability, without any *subsequent* difficulty in abstracting them, when necessary.

While thus strenuous for medicinal support, we must, by no means, omit furnishing the patient with a *regular* and *frequent* supply of *food*. Gelatinous and mucilaginous articles, such as Icthyocolla, Arrow-root, Broth, and Milk-porridge, are the best nutriment for the

sick. These should be administered often, (three or four times a day is not sufficient) but in small quantities at a time, so as to prevent the sensation of vacuity on the one hand, and of fulness on the other. Unless the diffusible stimuli are *alternated* with suitable food, they lose half their efficacy in the stage of exhaustion.

At the close of a severe disease, it frequently happens, that of a sudden, the stomach refuses every medicine. Of consequence, we let the patient remain without doing any thing, and find in twelve hours, that he is convalescent. To a *superficial observer*, it would seem, that the whole course had been wrong, and that recovery was the effect of abstracting improper medicine. The real fact is *directly* the reverse. The patient profited by the medicine, *while the disease continued*, but *after* the crisis, it *ceased* to be *useful*, and the stomach rejected it.

The charge of rashness and hazard, which we so confidently urge against the dashing and indiscriminate use of bleeding, emetics, and cathartics, our opponents *endeavour* to retort upon us, for the energy with which we administer counteracting and supporting agents. But the cases have no parallel. If we were to prescribe a *single* excessive dose of Opium, Alcohol, Lytta, or Arsenic, only once in the twenty-four hours, there might be some similarity. *We*, however, *aim at exciting a uniform, regular, and con-*

stant COUNTERACTION, *according to the urgency of the symptoms, keeping the system uniformly under the influence of medicine, and narrowly watching the* OPERATIVE *effects, and the* IMPRESSION *made on the disease.* When we fail of a resolution, *we* aim at gaining our cause, by the regular process of a *siege. They* attempt to dislodge the enemy, by a *coup de main.* If there was a rational prospect of terminating the case with one or two such efforts, there would be some ground for their adoption, but this is rarely the result. To a person who is ignorant (whether from indolence or not) of the powers of Opium, Alcohol, Arsenic, and other active agents, and of the tests of their operation, and who will *not watch* them with proper care, we perfectly agree, that they are hazardous. But if any man undertakes the charge of the healths and lives of his fellow citizens, it is his duty to be master of his profession. *No man has a right to say, he has done all he can do, unless he can likewise assert, that he knows all he could know.* "*Medicamenta heroica in manu imperiti, uti gladius in dextra furiosi.*"

It is also alleged, that our practice is as indiscriminate as that which we condemn; but a slight attention to the contents of this Volume, will afford ample evidence of the contrary. We have invariably maintained a *radical* and *fundamental* distinction between PHLOGISTIC and ASTHENIC diathesis, and do not,

like Welsh, Armstrong, and Clutterbuck, treat both states alike. It is true, that all asthenic, as well as sthenic diseases, agree in the most important circumstances; the whole of one sort uniformly requiring a greater or less degree of a *counteracting* and *supporting* treatment, while the other demands a *reducing* and *counteracting* plan. On reference to our method of managing simple Typhus, and Yellow-fever, as well as Pneumonia-typhodes, we think a variation will be found, fully corresponding to that of the different forms and stages of disease. It will farther appear, that even individual varieties of each, often have greater diversity of regimen and medication, than the most popular writers of the present day, allow for both inflammatory and typhoid diseases. True medication is not a bed of Procrustes, to the length of which every person must be either stretched or shortened; but on the contrary, it is a couch adjusted to the dimensions of the patient. In many instances, but little can be ascertained from the *name* of a disease, respecting its severity. Genuine Cynanche-maligna is sometimes so mild, that the patient recovers without any medication at all; at others, it leaves whole families childless. Nervous-fever is sometimes so slight, as not to prove fatal in one case in a hundred; in others, it may destroy one fourth of all, that suffer its attack. The Spotted-fever of Hartford was so rapid and tremendous, in comparison with those va-

rieties, which in some towns recovered under the mere use of external heat, and warm aromatic and diaphoretic infusions, that an eminent physician was inclined to think it, nosologically, a different disease. The same varieties occur occasionally, in Dysentery, Measles, Small-pox, and even Yellow-fever. From the first attack to the termination, some cases have all the coldness of death; others, the *calor mordax* of Typhus-gravior. Some are attended with excruciating pain and anxiety; others will not acknowledge themselves sick. These different forms and variations are, however, all capable of being classed and arranged, so as to make the practice sufficiently certain. At present, the young physician is lost in a labyrinth, without a clue to guide him. These circumstances show the necessity of minute details of symptoms, and of the immediate and remote effects of medication, to enable us to form an accurate estimate of the nature of a disease, or the propriety of the treatment.

We expect, that our method of treatment in Pneumonia, as well as in Dysentery, Yellow-fever, and common Typhus, will be denounced, as *stimulating practice*, which will probably be a sufficient reason for its rejection, and that even without any fair trial, by all *routinists*, by those who are too superficial to think and judge for themselves, and by those who are more swayed by party prejudices, than by cool and deliberate experience.

The term *stimulant* is used very vaguely, both by authors and practitioners. In some instances, it is made to include every article capable of making an impression, or of exciting a new action, or of overcoming an old one, or of producing *any* effect in a living animal system. In this sense, it is employed by J. Murray, in his classification of the Materia-medica, when he divides remedies into *general stimulants*, and *local stimulants;* and with the same propriety, he might have denominated his other two general classes, *chemical stimulants*, and *mechanical stimulants.* In this acceptation, the term stimulant equally includes blood-letting and Alcohol, Tartar-emetic and Cinchona, Nitre and aromatics, neutral salts and simple bitters, and in short, all medication whatever. In another sense, the term *stimulant*, denotes every article, which in customary doses is *incapable of* directly *diminishing* increased strength of arterial action, or in other words, sthenic or phlogistic diathesis, though it may be, at the same time, equally incapable of increasing it in genuine exhaustion. In this acceptation, Squill, Senega, mineral acids, fixed alkalies, and several of the narcotics, as Digitalis for instance, are said to be *stimulants.* In a third, and the only legitimate sense of this much abused term, it applies only to such articles as *directly increase the strength of arterial action*, in every case, in which they produce their regular effects. In this accepta-

tion, *we wholly deny*, that our practice can, with any shadow of propriety, be termed *stimulating*, till after the occurrence of symptoms of *genuine exhaustion*. Neither purging with Calomel, nor the compound effect of Calomel and Opium, nor of Calomel, Opium, and Ipecacuanha, nor of Opium and Senega, or Sanguinaria, or Veratrum, or Colchicum, as they are commonly administered, are stimulating operations. They never *directly* increase the strength of arterial action in this disease, nor are they capable of doing it, in any case of *pure* exhaustion. We are perfectly ready to admit, that they are equally incapable of reducing the increased strength of arterial action, in true sthenic or phlogistic diathesis, and that in consequence of not being adapted to such cases, they would *irritate*, coincide with, and increase such diseases. It is a great error to suppose, that the whole Materia-medica, can, with any shadow of propriety, be referred to the two divisions of *stimulants or exciting agents*, and *antiphlogistic or reducing agents*; since there are so many articles, whose sole operation is merely that of *counter-agents*, of some sort or kind, and which are neither directly nor indirectly *stimulating*, in the true sense of the word, nor *antiphlogistic and reducing*. The most violent declaimers against *stimulants*, admit their use in certain instances of pure exhaustion; but I never heard, that Calomel, or Ipecacuanha, or Senega, or Sanguinaria, or Veratrum, or Colchicum, were ever

selected for such cases. Whether Opium increases the strength of arterial action in typhoid Fever, or not, depends wholly upon the *form* of combination in which it is employed, and the *method* in which it is administered. But, whatever opinion may be entertained respecting the truth of the principles just discussed, the superiority of the practice here advocated, *rests entirely on experience.* We have had ample opportunity of comparative observation, and that even when the method to which we object, was directed by the ablest practitioners in the State of Connecticut—and we boast of men not inferior to any in the country. Under the method contended for, as we have elsewhere maintained, the proportion of recoveries is much greater, the disease is less severe and protracted, and convalescence is more rapid and complete.

That Dr. Miller, surrounded with antiphlogistic neighbours, and most probably, himself educated in the most depleting and antiphlogistic school of the present age, should have succeeded so well is truly a matter of astonishment. His free use of Antimony and neutral salts, the most exhausting and refrigerant articles, in what he himself admits to be the typhoid variety, is sure evidence of the doctrines and practice in which he had been educated. But—when we see him break through all the trammels and fetters of his school, his independence in publishing so impartial a

statement, together with his ingenuity, firmness, and integrity, are beyond all commendation. His great success under such profuse bleeding and vomiting, with an intermixture of antiphlogistic and coinciding agents, his being still able to use his *proper* counteracting means so efficaciously, as to overcome both the *factitious* and *original* severity of such a formidable and malignant disease, are an unanswerable evidence of his pre-eminent skill and dexterity. Men of genius can wield almost any kind of weapon, can work with almost any kind of instrument, and overcome almost any obstacles, short of physical impossibility. A dexterous Surgeon may amputate better, with a razor, a carpenter's saw, and an awl, than an inferior man, with the best instruments. But ultimate success by no means proves, that Dr. Miller's plan was the most eligible, in *all* its parts. Samson himself would undoubtedly have vanquished his thousand, with more facility, had he been armed with a sword.

We very much regret, that Dr. Miller has not been more particular in specification and detail. Had he stated the number of cases that fell under his care, the stage in which he commenced his treatment, the comparative severity of the cases, the number which he bled, the proportion of deaths and recoveries, &c. we could have formed a much better judgment, with regard to many of his conclusions, the accuracy of which, under existing circumstances, must still remain

somewhat questionable. As far as his account will enable us to decide, we can assure him, that he has met with no variety, which is not well known in New-England. For the information of many, who have very erroneously supposed, that Pneumonia-typhodes and the Spotted-fever of Hartford-County, in Connecticut, are the same, we can add, that essentially, they have nothing in common, except what belongs equally to *every* rapid, violent, sinking, and extremely typhoid disease. Spotted-fever is well known to have first appeared in Medfield, Massachusetts, in March 1806. It was certainly a disease specifically distinct from all others, in the same sense that, Nervous-fever, Yellow-fever, and Pneumonia-typhodes, are distinct from each other; and it is equally certain, that it was a non-descript, a new disease, as no previous *history* of it is to be found. If it had ever appeared before, its peculiarities were not noticed, and it was probably confounded with some of the Neuroses. Whenever we have mentioned it, in the course of this volume, we have generally called it, the Spotted-fever of Hartford, because in violence and rapidity, when compared with all the printed accounts (except of Drs. Strong and Fish) the disease was, in the language of Darwin, the *Plague* itself, while the other forms were mere *flea-bites.*

We have read Dr. Miller's paper with uncommon satisfaction; and though we have given so copious an abstract, we would still recommend the original

communication to the perusal of our readers. We desire them to contrast Dr. Miller's good sense, with the dogmas of a late popular writer, who maintains, that the objections to the *universal* use of bleeding in Fevers, derived from the supposed variation of cases, from the peculiarities in the previous circumstances of the patient, and the different nature of epidemics, caused by different climates, seasons, periods, and remote causes, are altogether futile, as he is confident no such variations exist. Dr. Miller's history happily illustrates the great advantage of a judicious combination of measures, in opposition to the writer referred to, who asserts, that emetics have little effect in febrile diseases, and only occasion a loss of time; that patients may be in a state of convalescence, from mere bleeding, before a cathartic can have time to operate; that diaphoretics are absolutely useless; and that Mercury has no beneficial effect at all. Dr. Miller, we think, has sufficiently shown, that singultus, subsultus, delirium, and coma, do not always indicate bleeding, and that weakness, quickness, and irregularity of pulse, are sometimes an objection to this measure.

We conclude, in the words of Dr. Gregory. "Omnes boni Medici, ad ea remedia semper confugient (sive modus, quo possunt, intellectus fuerit necne) quæ CERTA EXPERIENTIA prodesse comprobaverit."

END OF PART II.